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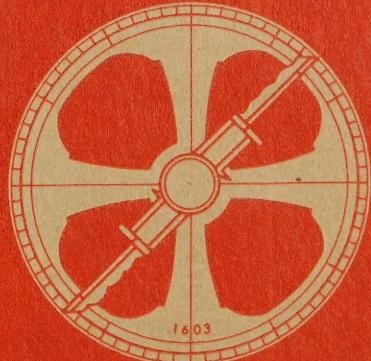
EOGRAPHICAL BRANCH

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The Changing Face of Toronto

Donald Kerr and Jacob Spelt

MEMOIR 11



**THE CHANGING FACE OF TORONTO—
A STUDY IN URBAN GEOGRAPHY**

**THE CHANGING FACE
OF TORONTO—
A STUDY IN URBAN
GEOGRAPHY**

**Donald Kerr
Jacob Spelt**

**Memoir 11
GEOGRAPHICAL
BRANCH, MINES
AND TECHNICAL
SURVEYS, OTTAWA**

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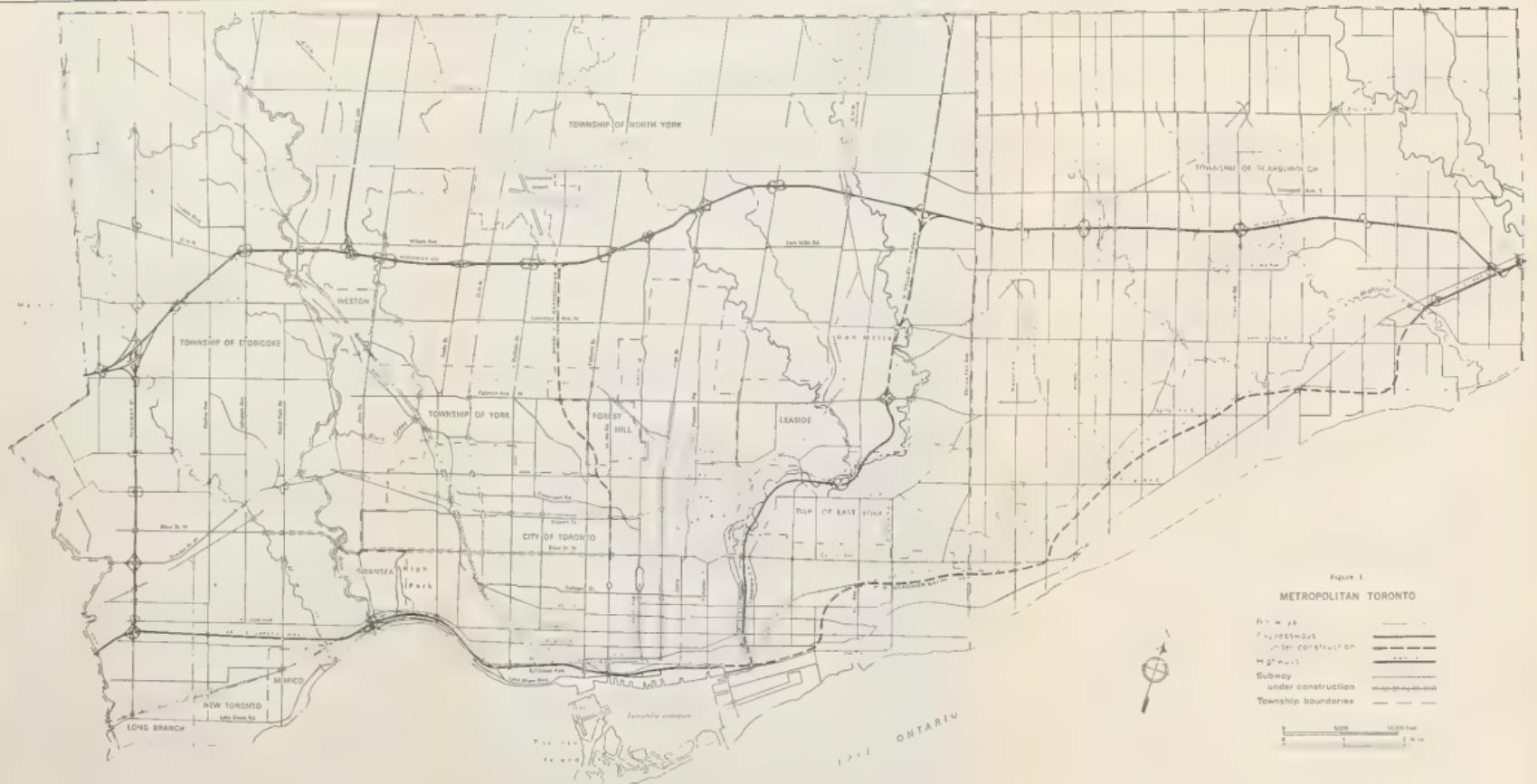


FIGURE 1. General location map.

PREFACE

Canada is highly urbanized. Almost half of its people live in cities of more than 100,000, and at least one quarter dwell in the metropolises of Montreal, Toronto and Vancouver. The city is therefore more than an ordinary element in Canadian geography and, as such, deserves special attention in the scholarly pursuits of the nation's social scientists. Numerous questions about the origin, growth and internal organization of Canadian cities remain unanswered. Many of these were raised by Griffith Taylor, a pioneer in Canadian urban geography, and Harold Innis, economist by profession and geographer by adoption. As senior colleagues of the authors at the University of Toronto in the late 1940's, they provided the early stimulus for the present memoir. Since 1956, the Geographical Branch has supported the developing research on the Ontario metropolis that is being conducted by the authors, both of whom are geography professors at the University of Toronto. This memoir is now offered as a further stimulus to research in urban geography and for the benefit of all authorities and individuals concerned with the city as a place to live and work.

J. D. Ives
Director
Geographical Branch

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INTRODUCTION

Metropolitan Toronto is a large multifunctional North American city situated at the northwestern corner of Lake Ontario. It has direct access to the Atlantic Ocean via the St. Lawrence River and canals and to the Upper Lakes via the Welland Canal. Lying in the midst of one of the most densely populated parts of the continent, it is accessible to almost half of Canada's population—that of southern Ontario and Quebec—by less than 15 hours' road or rail travel. Furthermore, its location on the northern edge of the most highly industrialized and urbanized parts of the United States puts it within 500 miles of 90 million Americans, or a little more than half of that country's inhabitants.

In broad perspective, Toronto lies within the southern Ontario extension of the Interior Lowlands of North America, the Appalachian mountain system being just to the south, in Pennsylvania and New York, and the Canadian Shield just to the north. With some justification then the city can claim inclusion in the Midwest, and many of its functions indeed reflect this position. Toronto's historic interest in the Northwest, especially in terms of the settlement of the Canadian Prairies, shows the city's strong orientation toward the interior. The importance attached to the agricultural-machinery industry and meat-packing reminds one of Chicago. Commercial air traffic, which includes very few direct flights to destinations outside North America, is similar to that of Kansas City or Minneapolis. But it is in the financial control of many of the resources of the North and West that Toronto is most closely tied to the continental interior. This is not to say that Montreal has no interest in the West or Northwest, but the rise of financial institutions in Toronto to rival or even surpass those of Montreal was undoubtedly due to the success of the Ontario metropolis in exercising increasing control over the mining industry of the Canadian Shield in particular and that of the Prairies and British Columbia in general.

This argument for the city's inclusion in the Midwest cannot be pressed any further, for, in its position on the extreme eastern margin of the Interior Lowlands, relatively close to the Atlantic seaboard, Toronto has certain characteristics that recall impressions of such eastern cities as Boston or Baltimore. Most of Canada indeed considers Toronto an Eastern city, the exception being the Maritime Provinces, where "Upper Canada" is often synonymous with Toronto. Mention of Toronto in various parts of Canada, especially in the West, invites caustic comment which Midwesterners and Westerners in the United States reserve for the Atlantic seaboard, especially New York. A case in point is Toronto's Bay Street which in Canada has achieved the same reputation as New York's Wall Street, carrying the same connotation of financial control.

Because of the political separation of Canada and the consequent importance of British influences in the life of Toronto, analogies with the United States must of necessity be limited. Until very recently the population was overwhelmingly of British or Anglo-Saxon origin, and throughout the nineteenth century and well into the twentieth the city had the reputation of being, both in nature and outlook, very British.

In recent years, however, large-scale European immigration has had a profound influence. Italians and Germans in particular, but also Polish and Ukrainian groups as well as many others, have been attracted to Toronto in large numbers. The city has benefited accordingly, the newcomers adding a cosmopolitan flavor to a traditionally rather austere community.

Metropolitan Toronto, which in 1961 had a population of 1,600,000, is the second largest municipality in Canada and the thirteenth largest in North America. Industrially, it stands second to Montreal in Canada and thirteenth on the continent. In 1960, employment in the metropolitan area reached 655,000, of which one third were engaged in manufacturing. The wholesale trade has long been an important part of the city's economy; in fact the city functions as a great emporium through which an incredible variety of goods passes. Closely associated with distribution is retailing, which is not only local in function but also regional and in a few categories even national. Furthermore, the wealth of Toronto supports specialty shops, high-class restaurants and galleries not found in other parts of Ontario, or even of Canada except Montreal. The rise of Toronto as a financial centre, however, has been most remarkable. Both stock-market transactions and bond dealings exceed those of Montreal and in some categories are surpassed in North America only by those of New York.

Toronto is wealthy. It accounts for just over 37 per cent of all bank clearings in Canada, and its national significance is revealed by the fact that 30 per cent of all corporation taxes and 20 per cent of all personal income taxes paid in Canada stem from the Toronto area. Thus, an efficient functioning of the city should be in the interest of the nation as a whole, and it may be asked whether higher levels of government should not make greater contributions toward alleviating some of the city's planning problems.

Curiously enough, the affluence of the city is not reflected in the appearance of its cultural landscape. It seems that Toronto through most of its history has been concerned mainly with the accumulation of wealth. Its citizens have attained a high level of prosperity but have done little until very recently to enrich the beauty of the city with wide avenues, attractive drives or enticing open space.

A major theme of this monograph is the explanation of why such a large city developed on such a site. Toronto cannot trace its origins as far back as most of its counterparts in the St. Lawrence, Ohio and Mississippi valleys and on the Atlantic seaboard and was late in entering the race for metropolitan dominance. It nevertheless quickly caught up. Skilfully interpreting and exploiting the opportunities afforded by the physical geography of eastern North America and responding to the challenge of Montreal, its people laid the basis for a metropolitan influence that would eventually encompass nearly all the nation. For

this reason no attempt is made to delimit the umland of the city, since nearly the entire country has contributed to Toronto's development and is in turn dependent to varying degrees on services resulting from the conurbation.

Closely related to the foregoing theme and constituting a large part of this book are discussions on what might be called the ecological complex of Toronto. The human group making up the city and the subsequent conurbation has drawn on a variety of physical and cultural resources to build its metropolis. Cultural factors, best defined in terms of the inheritance of the past, the economic forces of the time and the aims, ambitions and technical skills of the inhabitants, have unquestionably been most important; but physical influences have not been entirely lacking even though the city occupies a relatively "easy" site.

That the Toronto ecological complex is not in perfect equilibrium is revealed by the planning problems facing the present community. At different times in the past, attempts were made to find solutions for difficult situations, but many worthy plans for improvement were shelved because of indecision or a false sense of economy. The most significant development of recent years has been the creation of a new form of local government, which in turn has provided the leverage to reach new heights.

It needs only to be mentioned that the approach of this study has to be historical. The inhabitants of the nineteenth-century city laid out streets, erected buildings, established relations with other parts of the country—in general, created an environment that gave the city form and substance. Their decisions, which reflected the attitudes, traditions and energies of the times, influenced the structure of the present urban complex most profoundly.

Acknowledgments

For information on Toronto's origin and growth and help in identifying and investigating the various cultural and physical aspects of its ecological complex the authors have relied heavily on historical and contemporary statistics, maps and geographical field work. The work of scholars in other fields, especially in economic history must also be acknowledged. The most outstanding of these, is Harold Innis, who personally or through his influence on colleagues or on the works of his students has made the richest contribution. Only rarely have the other disciplines put the focus on the city as such; their major findings were given a fresh interpretation for an understanding of the growth of Toronto.

Many have helped greatly in the collection of data; to all, the authors are much indebted. In particular, they acknowledge the kind assistance of the various members of the City of Toronto Planning Board and the Metropolitan Toronto Planning Board, and especially that given by Donald Patterson and Robert Redelmeier, the latter having assisted with the selection of photographs.

Capt. E. C. Hopkins, Toronto Harbor Commission, M. K. Thomas, Meteorological Branch, Department of Transport, Toronto, and Dr. C. C. Lingard, Director, Information Services Division, Dominion Bureau of Statistics, helped considerably in making available otherwise inaccessible material.

CHAPTER II

LOCATION AND BEGINNINGS

The Site

The morphology of a city is influenced by the site on which the city has developed. At the time of founding and during initial expansion, this influence is usually considerable but diminishes as the city matures, and may be almost completely subdued by incessant change. No city, however, becomes completely independent in this respect. No matter how level the terrain, accessible the water supply, mild the climate or well drained the soil, the site will exert some influence. Toronto is no exception, even though its site presents few obstacles or problems.

Toronto's site, at $43^{\circ}39'N$ and $79^{\circ}23'W$, consists of a virtually level plain that slowly rises to a steep cliff beyond which its surface features are more varied. The Humber and Don rivers traverse the plain in a generally northwest-southeast direction. To the south, land and water seem to interlock, part of the lake having found shelter behind a westward-jutting sandy peninsula.

The formation of the different characteristics of the site has been largely the work of the Wisconsin ice sheet and associated phenomena, such as glacial Lake Iroquois, one of the predecessors of Lake Ontario. The origin of glacial landforms and the characteristics of the bedrock in the Toronto area have been thoroughly analyzed by Coleman (1932; 1936, a and b), and much of the following is based on his contributions.

Geological Materials and Surface Features

Bedrock in the Toronto region is made up of black Ordovician marine shales of the Dundas formation and a few sandstones and limestones. It is buried beneath unconsolidated sands, gravels and clays of glacial origin, the depth of which varies widely according to the preglacial surface of hills and deep valleys. Thus, near Keele Street at St. Clair Avenue, at least 250 feet of drift rests on the bedrock, which at this point is more than 80 feet below the level of Lake Ontario. Farther east, another deep channel reveals bedrock 156 feet below the level of the lake near Woodbine and 88 feet below lake level at the mouth of the Don River. Although bedrock is found much closer to the surface elsewhere, it outcrops only in a few places. Shale is exposed along the valley of the Humber, and near Weston it lies 190 feet above Lake Ontario. Along the lakeshore to the west of the Humber, shale rises a few feet above the water level, and the overburden of till is less than 20 feet thick. Very little bedrock is exposed in the Don Valley, a small outcrop occurring near Bloor Street and another about 37 feet above lake level in a brick yard a little farther north. To the east of the peninsula the shore consists entirely of boulder clay.



PLATE I. Davenport Road, viewed from the east, winds along the base of the Iroquois shoreline on the top of which stands Casa Loma. To the south, industry and closely spaced housing occupy the upper part of the Iroquois Plain. The Canadian Pacific belt line is conspicuous. To the north, housing predominates on the more rolling till plain. Some high-class residences may be seen just east of Casa Loma on the edge of the shoreline.

Obviously, the bedrock would not interfere with the building of the city. Only in a few instances has it had to be excavated for deeply sunk construction. In the early nineteenth century the bedrock sometimes made it difficult to find an adequate water supply: several wells on the site produced salt water, and springs found elsewhere were salty and briny. A number of bedrock materials have been of lasting value for the erection of buildings and the construction of roads. Limestone blocks are quarried in Silurian deposits not far from the city, and large quantities of shale have been used for the manufacture of brick.

Toward the end of the Pleistocene, water from Lake Iroquois flooded the southern part of the Toronto site. Later it receded to the present limit of Lake Ontario and in doing so exposed a generally level lacustrine clay plain. By cutting back glacial till Lake Iroquois formed a bold shoreline which rises as a hill from 50 to 75 feet high. Many north-south streets end abruptly at the base of the hill which, even today, forms a barrier to communications. Some streets have penetrated the shoreline through stream-made notches or along man-made grooves. For a considerable distance, Davenport Road closely follows the base of the hill to the south of which an east-west railway has encouraged industrial development. In contrast, many stately homes were built on the brow of the hill, among which aristocratic Casa Loma, with its crenelated walls, is most prominent (Plate I).



PLATE II. Scarborough Bluffs, a mass of till, varved clay and interglacial sands rising about 350 feet above Lake Ontario in the eastern part of Metropolitan Toronto. Erosion from the Bluffs has contributed to the formation of Toronto Island. The till plain extends north and is traversed by Kingston Road and the Canadian Pacific Railway. In the background, the postwar industrial and residential expansion of Scarborough Township.

From the till the eroding lake liberated numerous erratics, which at one time blanketed the ground at the foot of the cliff and were subsequently used for building or crushed for use in road pavement. Similar boulders, some of huge proportions, have been unearthed in building excavations on the lacustrine plain proper.

To the north of the old shoreline, surface features are more varied. Sandy till dominates about as far as Lawrence Avenue, but farther north a bevelled till plain covered with a thin veneer of clay becomes more common. Most undulations on the till plain are due to the presence of drumlins that rise about 50 feet above the general level and are typically oriented toward the northwest. Within the metropolitan boundaries, the till plain reaches heights of more than 400 feet above Lake Ontario.

The site of Metropolitan Toronto is drained by two rivers, the Don and the Humber, both of which rise in rough moraine country northwest and north of the city and, joined en route by a number of tributaries, flow southeastward. North of the Iroquois shoreline, the deep, broad glacial valley through which a typical stream meanders is incised as much as 100 feet below the level of the till plain. Carved out by the floodwaters of the melting glacier, these forested ravines are richly scenic. Parts of their landscape have been appropriated for golf courses and parks and for some high-class residential developments. Because of their low grades, the valleys are used by railways entering the city; and in recent years, to avoid cutting wide swaths through densely built-up areas, superhighways have begun to encroach upon them.

Lake Iroquois left interesting surface features on the lacustrine plain. Strong winds associated with storms frequently churned the glacial lake and the resultant wave erosion took off headlands, smoothed the shoreline and piled huge bars across bays. The east Toronto bar, a mass of gravel and sand almost 4 miles long that rises 185 feet above the present level of Lake Ontario, was built across the mouth of a long bay into which the Don flowed. The bar juts westward from Scarborough Bluffs, a Pleistocene mass of till, varved clays and interglacial sands towering abruptly some 350 feet above the lake (Plate II). Kingston Road follows the crest of the bar into the city until it is deflected to the southwest by a deep ravine that at one time contained a large marsh. The Davenport bar, lying across the mouth of ancient Humber Bay, is a little smaller. The bars caused a westward deflection of the modern streams, which now flow almost due south (Figure 2).

Both the Don and the Humber deposited gravel, sand and clay behind the bars, while Lake Iroquois smoothed the till on its own bottom, blanketing and filling it with clays and sands. The Humber, especially before the building of the Davenport bar, deposited a 50- to 70-foot layer of sand, which accounts for the extensive sand deposits in the western part of the city. Thus was created a plain 2 to 3 miles wide gradually sloping toward the shore of Lake Ontario. This is the plain on which the older part of Toronto now stands.

Originally, the city plain was traversed not only by two main rivers but by a number of creeks, some of which arose from springs along the margins of the Lake Iroquois bars and the Humber sand delta. Others began on the till moraine

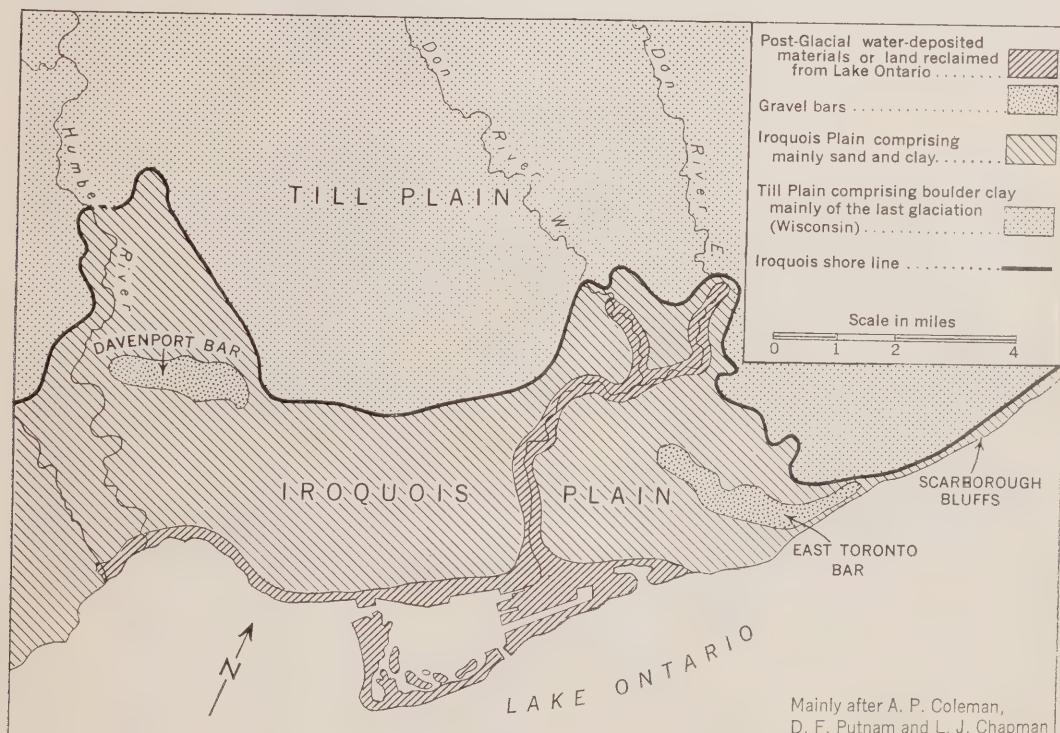


FIGURE 2. Surficial geological features. Dominating the southern part of Toronto is the relatively level but rolling Iroquois Plain, two large extensions of which are found along the Don and Humber valleys. Most of suburban Toronto lies beyond this till plain.

farther north. Some of them cut impressive valleys during the 10,000 years that have elapsed since the recession of Lake Iroquois. The most important of these streams were Garrison Creek, which entered the lake near the foot of Bathurst Street, and Taddle Creek, to the north and east of the young town of York (Figure 3). At the time of the founding of the city several parts of the city plain were still poorly drained and marshy, but elsewhere some of the creeks had carved deep ravines. These creeks, together with the marshes, influenced the expansion of the town in its early phases. On this account, streets changed direction or ended abruptly. It was not until 1847 that the City Council decided to extend Queen Street across Taddle Creek and through a marsh east of Jarvis Street. As the city expanded, the creeks became badly polluted and their ravines were filled in and became the routes for trunk sewers. Some sections, however, have been preserved and now account for the location of many parks in the built-up area. Only the Don and Humber rivers continue to require expensive engineering works for proper integration of the arterial road network of the growing city. The Bloor Street viaduct across the Don Valley was completed in 1918, and the western and eastern parts of Eglinton Avenue were joined across the valley in 1956. In contrast, St. Clair Avenue was never continued eastward across the Don.

On the basis of an annual mean, the Don and Humber rivers respectively discharge 107 and 233 cubic feet a second. At times however, the rivers have almost dried up, the flow dropping as low as 8 cubic feet a second in the Humber and 2 cubic feet a second in the Don. On the other hand, the water has occasionally risen high enough to cover part or all of the flood plains. The most tragic flood occurred in October 1954 when a tropical storm swelled the volume of water in the Humber River at Weston to 45,600 cubic feet a second. In the main channel of the Don the discharge reached 15,000 cubic feet a second. In both



FIGURE 3. Physiographic features. The Iroquois shoreline is nearly everywhere conspicuous. In the east it coincides with the present shoreline of Lake Ontario.

valleys, very heavy flooding ensued; eighty persons were drowned and many buildings and bridges were washed away. Extensive measures have been taken to prevent a recurrence of such a disaster. (See also p. 24.)

The sands, clays and gravels found on the city plain have played an important part in the actual building of the city and have greatly affected its appearance. Huge amounts of gravel have been removed from the old shoreline and bars to be used for road construction, as ballast for railroads or in the making of concrete. The Humber delta sands have become scarred with pits. Hundreds of wagonloads of good-quality sand have been carted away from Clover Hill, which was southwest of the intersection of Yonge and Bloor streets.

More important, however, has been the manufacture of bricks from clay. The red brick so prevalent in Toronto derives from peaty Iroquois clay largely leached from its lime content. The lower deposits of the clay burn to a buff brick. Especially behind the gravel bars, there is usually 10 to 15 feet of good brick clay. Early in the twentieth century, Toronto and its suburbs had some 30 brick yards, which produced more than 100 million bricks a season. In addition, several yards were engaged in the manufacture of sewer pipe, paving brick, drain tiles and pottery (Baker).

As the city expanded, the clay deposits became depleted and the yards moved farther out. The abandoned yards, along with former gravel and sand pits, became sites for housing developments, parks or industrial concentrations. The last-mentioned could be established very easily, since many yards had been provided with rail sidings. Such was the case with the pits along Greenwood Avenue, near the tracks of the Canadian National Railways. Other pits became Monarch Park, Ramsden Park, Willowvale Park and Eglinton Park, while the pit on Yonge Street near Davisville became the marshalling yards for the subway.

The Lakeshore and the Island

Toward the end of the eighteenth century, the city plain terminated abruptly, at the water's edge in a grass-covered clay cliff 12 to 20 feet high, at the foot of which a narrow strip of beach had been formed. Just as Lake Iroquois built bars in the course of smoothing its shoreline, so its successor, Lake Ontario, created the Toronto Peninsula, which eventually became Toronto Island. By protecting Toronto Bay against the fury of the lake it adds to the site a small attractive natural harbor (Plates III A, B; Figure 4).

Easterly winds, although not frequent, become powerful while sweeping the length of the lake. The resulting current, which may reach a velocity of more than a mile an hour, transports debris westward from Scarborough Bluffs and deposits it in the bay. The westerly winds, which are predominant but travel only a short fetch across water, have shaped the northward curvature of the deposit, thus building up a compound recurved spit. That this 5½-mile-long hook is broken on the inside into lagoons and islands testifies to its gradual westward migration. Grenadier Pond, which developed behind a bar thrown up across the mouth of a stream in High Park, is an example of what is called a liman.

Originally, both the Don and the Humber rivers meandered sluggishly across their wide flood plains. Near its mouth, the Don split into two channels and entered



PLATE III A. Toronto Harbor viewed from the east. To the left lies the horseshoe-shaped, forested Toronto Island. In the foreground reclaimed land is partitioned by ship channels and the Richard Hearne thermal station may be seen. To the west, concrete piers define the eastern entrance to the harbor.

PLATE III B. Toronto Harbor and Island viewed from the west. In the foreground can be seen the silt-laden Humber River, Grenadier Pond and High Park; beyond lies the Iroquois Plain. A modern sewage-disposal plant has been built near the mouth of the Humber. Along the lakeshore, highways and railways run to the centre of the city.



the bay through a marsh that extended between the neck of the spit and the mainland. Around 1890 some 2 miles of the lower Don were straightened when three big meanders and two small ones were cut off, mainly to create easy access for railways to the centre of the city. The marsh, known as Ashbridges Bay, was filled in and became industrial land, which is accessible via a ship channel with a turning basin at the end. Keating Channel is the new mouth of the Don River.

The peninsula and bay also underwent many changes. When the city was founded, the only access to the harbor was from the west through a channel 500 yards wide and 15 feet deep. A broad shoal west of the spit made entrance hazardous, and the prevailing westerly winds made exit difficult for sailing ships. During the nineteenth century the growth of the spit made the western gap narrower and shallower.

It was not until the 1850's that the peninsula became an island. In 1852 stormy waves from the east first broke through the spit near the southeastern corner of the present harbor. During the next six years the breach silted up and opened several times; in 1858 a very heavy storm opened it permanently. By the middle 60's, the eastern gap measured three quarters of a mile wide and about 8 feet in depth and became the main entrance. Piers spaced 500 feet apart were completed in 1882. Since 1902, the channel has been maintained by the federal government, which completed new concrete piers in 1927.

In the meantime, the western gap became more and more difficult to negotiate and several ships were wrecked at its entrance. A new channel, built 1,300 feet to the south of the old entrance to avoid expensive bedrock excavation, was

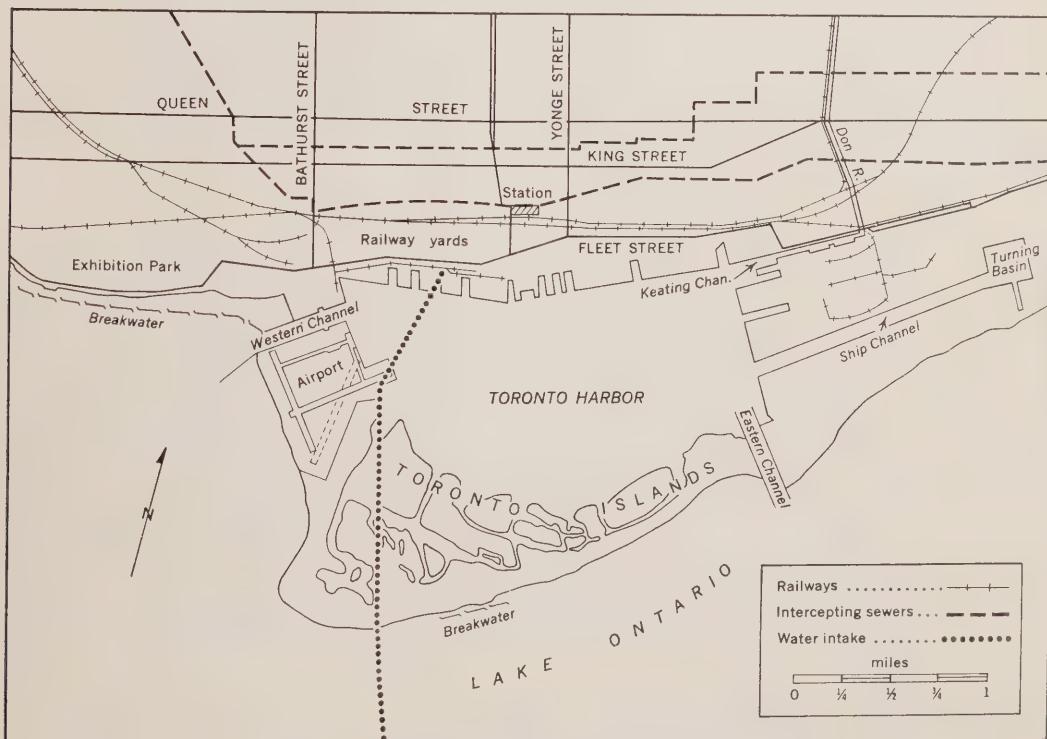


FIGURE 4. Toronto Harbor, 1962.

completed in 1911. Farther east, along the north shore of the bay, a broad strip of new land was gradually reclaimed in connection with the development of port facilities.

The bay, at present about 2 miles long and a mile wide, has a foundation of bedrock overlain by glacial and lacustrine deposits. At the western entrance, the bedrock lies 20 feet below the surface of the lake; in the northeastern corner it drops to 42 feet and in the eastern entrance to 70. The harbor itself has been dredged to a general depth of 26 feet, and in all construction work provision has been made for an ultimate depth of 30 feet.

The Lake

Lake Ontario, a deep gash in the earth's crust, reaches about 475 feet below sea level in its deepest section, and is 246 above sea level at its surface. The origin of the lake has been variously ascribed to river erosion, diastrophism, and glacial overdeepening.

This deep lake is a repository for relatively cold water that has an average temperature of 39°F. Only the temperature of the surface layer changes substantially. In winter, ice forms along the shores and navigation is impeded. The ferry service to the Island, however, can be maintained. During the summer the surface water warms to more than 50°F, and in shallow parts it rises above 66°F. A very steep temperature gradient exists at the bottom of the surface layer, the lapse being possibly as much as 30 degrees in 10 feet. In late summer the warm surface layer generally reaches a depth of 30 to 35 feet (Millar).

In summer, the prevailing westerlies push the surface water slowly to the south and southeast, causing an upwelling of cold water along the northern and northwestern shores, especially between Cobourg and Hamilton. The surface water off the Toronto area is consequently very cool during the summer, and the lake is thus less attractive for recreation than would be expected. On the other hand, the availability of cool water in huge quantities has been of importance to several manufacturing industries.

The Climate

In the broad pattern of atmospheric circulation, Toronto lies in the zone of the disturbed westerlies, within which a succession of low- and high-pressure systems moves in a generally west-to-east direction. The typical meteorological sequence shows a stormy wet period followed by dry settled conditions, the frequency and severity of change being greater in winter than in summer. Annual precipitation amounting on the average to 31 inches* is distributed very evenly throughout the year, no month recording more than 3½ inches or less than 2½. Furthermore, extended dry or wet periods are very uncommon. The longest continuous period with no measurable precipitation was 34 days—from July 29 to August 31, 1876; the longest wet period was 15 days—from January 25 to February 8, 1955. Normally, dry periods do not last longer than one week, nor

*Unless otherwise indicated, the statistics given in this section are those recorded at the Head Office, Meteorological Offices, Department of Transport, which is at 315 Bloor Street West, just northwest of the Central Business District.

wet periods longer than three days. On the average, a slight moisture deficiency develops by mid-July and lasts until early September, the total of the deficiency, as calculated by the Thornthwaite Formula (Thornthwaite), being just under 2 inches. Watering of lawns and gardens, although not essential, is desirable after July 15.

Because of the frequent interaction of air masses with contrasting characteristics in the Great Lakes area, Toronto is subjected to large temperature changes. In winter, a southwesterly flow of relatively mild air is often followed by a northwesterly circulation that causes temperatures to drop sharply. It is true that Lake Ontario modifies these arctic outbreaks and that Toronto suffers less than communities to the north and east. Temperatures nevertheless drop to 0°F at least once each winter: in February 1934 —25°F was recorded. Furthermore, there is considerable variation in the mean winter temperatures from year to year, the range extending in January from a low mean of 10.4°F, the normal for Sudbury, Ont., to a high mean of 35.4°F, the normal for Washington, D.C. (Shenfield and Slater, p. 31).

In summer, heat waves bringing temperatures exceeding 85°F, alternate with pleasant warm spells. Hot humid air flows into the Toronto region on the north side of a large Atlantic anticyclone centred over the southeastern United States. Normally, tropical Gulf air invades the Toronto region four times each summer and remains about four days.

During the course of a year, Toronto experiences a variety of meteorological conditions ranging, in varying degrees of intensity, from the sultry heat common in the Tropical Rain Forest to the cold, dry, windy conditions found in the Subarctic. The winter circulation pattern normally persists well into spring as that of summer extends into fall.

One of the most striking characteristics of the Toronto climate is the late arrival of spring. In spite of the lengthening days of March, temperatures remain relatively low, daytime values rising only to the low 40's and freezing temperatures occurring, on the average, one night in two. The winter snow cover usually melts away by mid-March, after which the landscape appears bleak and colorless. Around the middle of April, the grass begins to turn green and most plants start growing slowly, while the mean daily temperature reaches 42°F. Temperatures rise gradually until the first week in May, after which they rise more rapidly. During this period cold rain or even wet snow may fall. From time to time, furthermore, the prevailing easterlies of late March and April blow cool, damp air off Lake Ontario, thus keeping temperatures relatively low. The last frost is ordinarily recorded around May 3, but the possibility of a later frost makes garden experts reluctant to set out sensitive plants until after May 24. For the early British settlers the long delay of spring must have been depressing.

A major characteristic of the summer climate is the occasional heat wave in which uncomfortably high temperatures and humidities affect the life of the city.*

*In Toronto the discomfort index averages 72.9 in July and 71.9 in August. When the index is 70, it generally causes discomfort to less than half the population; when 75, to 50 per cent; and when 80, to all (Thomas, 1959a).

Perhaps the most disagreeable feature is the warmth and mugginess that pervades the night air while temperatures remain above 70°F. As the night winds are typically light, conditions are very uncomfortable.

The possible occurrence of hot humid weather contributes in large part to the annual migration of many Torontonians to resorts and cottages. A "summer Toronto" develops which includes the Lake Simcoe and Georgian Bay areas and extensive parts of the Shield and reaches westward as far as the shore of Lake Huron. In some municipalities on the Shield the proportion of Toronto summer residents is so large that their elected representatives dominate the local council. Another manifestation of the summer climate has been the increase in the demand for air conditioners in office buildings, stores, restaurants, theatres and homes.

Autumn sets in gradually, and to many it is the most pleasant time of the year. The first frost is normally delayed until October 15, and it is not unusual for chrysanthemums, petunias and other annuals to bloom until early November. Large anticyclones frequently drift slowly over the Great Lakes area, bringing calm, mild, lazy days and cool nights—the period of Indian Summer. The serenity of autumn is broken from time to time by mid-latitude cyclones that bring rain and very infrequently some snow. Storms reinforced by an inflow aloft of warm, moist air from a northward-moving tropical cyclone may become very violent. It is estimated from records kept over the last 60 years that once every six years, on the average, hurricanes will maintain their intensity as far north as Toronto, either in the form of a regional disturbance or by the injection of energy into a storm moving eastward in the westerlies. The most destructive storm to affect Toronto in modern times was Hurricane Hazel, which in 24 hours on the week end of October 15, 1954, brought the northwest part of the city 10 inches of rainfall accompanied by high winds and serious flooding. This has been described by Boughner, by Mason, Thomas and Boyd, and by Knox.

The period of winter, when the mean daily temperature remains below 32°F, lasts from early December until mid-March. Precipitation in the form of snow is the most conspicuous feature, the total at Toronto averaging 55 inches as shown by measurable amounts over 47 days. The extremes of variation over a 120-year period were the 125.5 inches that fell during the winter of 1869-70 and the 18.4 inches fall of 1952-53. The heaviest 24-hours fall, which amounted to 20.5 inches, came down on December 11 and 12, 1944. More than half the winter snowfall is usually recorded in January and February. A sharp decline begins in March, when most of the precipitation is rain.

Low-pressure systems produce most of the snow in the Toronto area, very little resulting from circulation off Lake Ontario. In this regard, Toronto is admirably located in contrast to Buffalo, Cleveland, Owen Sound and other snow-belt communities where very large falls occur when westerly or northwesterly winds blow across the Great Lakes.

The most serious effect winter snowfall has on the city is unquestionably that of reducing the capacity of streets to carry vehicular traffic. Even a slight fall of 2 or 3 inches slows the flow considerably. So important is snow removal that Metropolitan Toronto annually budgets about \$1,300,000 to carry out various tasks including ploughing and the application of chemicals.

Over the last century, a trend toward lower snowfall has set in. For example, the annual average to 1880 was 61 inches, while for the period 1866-77 the snowfall exceeded 80 inches in each of nine winters. During the last 25 years on the other hand, the average has dropped to less than 55 inches and only two winters have had more than 80 inches recorded. The trend may be related, in part, to a general rise of about 3°F in the winter temperatures of southern Ontario in the last hundred years and to the warming effect of the growing city, estimated to be 1°F (Thomas, 1953, 1959b). In short, some of the precipitation that fell as snow in the middle of the nineteenth century now falls as rain because of the slight rise in temperature.

The only other winter precipitation hazard is that of freezing rain and drizzle, which forms a coating of ice. The Bell Telephone Company estimates that ice storms lasting long enough to cause extensive damage to trees and electric-power and telegraph lines occur about once every three years (Shenfield and Slater, p. 47; Thomas, 1960). Because of the large amount of overhead wiring in the city, damage may be substantial.

Of some importance in defining winter temperature conditions are statistics on heating degree-days and winter-design temperatures. Each year in Toronto there are, on the average, 7,008 degree-days below 65°F, while in Ottawa there are 8,740 and in North Bay 9,340. In fact, only the extreme part of southwestern Ontario and the Niagara Peninsula have significantly lower values. In designing house heating systems and insulating houses in the Toronto area, a temperature of $0^{\circ}\pm F$ is considered critical for maintaining comfort. True, temperatures will drop but not frequently enough to necessitate better protection. In Ottawa $-15^{\circ}F$ is considered to be critical, and in North Bay $-20^{\circ}F$. (For definitions and further discussions see Thomas, 1959b.)

What has so far been said about the climate of Toronto has been based on readings taken in the centre of the city, specifically at 315 Bloor Street West. A number of stations scattered at different times in various parts of the city have recorded weather observations on the basis of which a number of significant local variations can be described. Among the factors affecting the microclimate, proximity to Lake Ontario, the density of the built-up city and local surface features are the most important.

Of interest are the differences in temperature between the suburbs and the older city. By and large, the suburban areas have lower average temperatures throughout the year than the city proper. In January particularly, the mean daily temperature at Malton Airport is 3°F lower than in Toronto. It should also be noted that the last frost in spring will strike Malton on the average eight days later, on May 11, and the first fall frost 10 days earlier, on October 5. For the most part, such differences can be explained by the increased distance from and elevation above the lake and the diminished heating effect of the city in the more sparsely populated suburbs. In summer, average temperatures are highest in the central core of the city and lowest near the lakeshore and in the suburbs. On the whole, temperatures are remarkably uniform on a typical summer day except near the lakeshore, where they may be lower depending on the direction of the wind.

At night, temperatures are lower in the suburbs than in the city. The difference may be accounted for by the greater nocturnal radiative cooling that occurs in the suburbs, largely because lower-atmosphere impurities are fewer there. In addition, the city's higher tree density tends to restrict surface radiation, trapping warm air at the lower levels. Tree density, on the other hand, shades large areas and so holds down afternoon temperatures. What is perhaps most important is that the great mass of brick, asphalt and concrete cools off more slowly than the open grassy stretches of the suburbs.

Unless a strong southerly wind is blowing, the cooling effect of Lake Ontario is limited to the Island and a narrow zone along the shore. It is estimated, in fact, that the temperature gradient between the Island and Bloor Street, which is 4°F in June and 3°F in July, takes effect within a few blocks of the lakefront, especially east and west of the Central Business District.

No weather stations have ever been established downtown, but it has been observed that summer-afternoon temperatures are lower than those in uptown districts. The tall buildings not only reduce direct sunlight to a small fraction of its suburban extent but also create funnel winds that tend to reduce sensible temperatures. Furthermore, the absolute humidity of the air is normally lower because of the relative lowness of evapotranspiration, which is explained by the absence of vegetation and the fact that, during rainstorms, water very rapidly drains beneath the pavement, leaving little to be evaporated.

Evidence from a large number of stations recording precipitation shows that the rainfall average is uniformly distributed through the metropolitan area. The distribution of snowfall, however, is uneven. On the basis of a 10-year record, the snowfall map shows an average of 37 inches on the Island but more than 60 inches near Markham, in the northeast (Potter). Snowfall is about 10 inches less in the western half of the city than in the east, where the gradient becomes quite sharp (Figure 5).

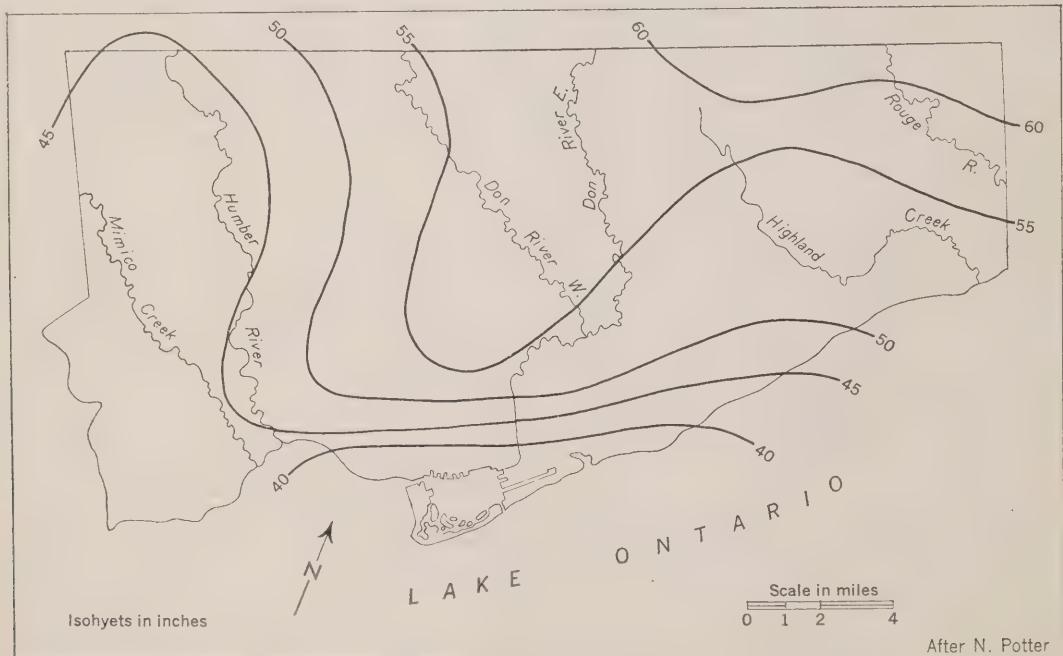


FIGURE 5. Normal winter snowfall in Metropolitan Toronto.

The Site at the End of the Eighteenth Century

When the founders of the city approached the site from across the lake in the late 1780's, two elements dominated the scene: the placid, almost completely enclosed bay and the densely forested frame of the peninsula and the mainland. The peninsula was hidden under a thick cover of willows, poplars and pines. The lagoons contained extensive marshes of reeds, sedges and cattails, all flourishing in the stagnant water and offering a haven for myriads of wild fowl.

The city plain, the Iroquois shoreline and the till plain beyond were clothed with a dense and trackless forest. The dominant trees were elm, oak, maple, beech and butternut. Pine was abundant on the sandy soils, especially on the Iroquois bars. Here and there were marshes, which in spring and fall became widely extended and made large areas impassable. The swamps were breeding grounds for clouds of mosquitoes, which plagued the early inhabitants with fever. Natural meadows stretched along the lower Don.

The streams were rich in fish, including salmon, which ascended the Don River as far as Yonge Street, near Thornhill (Scadding, 1873, p. 454; Cruikshank and Hunter, v. III, p. 58). The lake also was rich in fish, good fishing grounds extending just outside the peninsula.

Such was the site on which a city of more than one and a half million would emerge. It offered no outstanding advantages. Along the north shore of Lake Ontario, in fact, there were other well-sheltered harbors, some of which commanded large streams leading farther inland than those in what is now Toronto. The humid continental climate did not make the site at the mouth of the Don more attractive than others in Upper Canada. Certainly, there is no evidence to suggest that Simcoe or his advisers knew of its advantages over many other localities. Its lower snowfall and the relatively low number of its heating degree-days were benefits that fortuitously accrued to the later residents.

Poorly drained clay soils, which gave rise to the phrase "Muddy York," and malaria-infested swamps were serious drawbacks and prompted Talbot as late as the 1820's to refer to the area as being "better calculated for a frog pond, or beaver meadow, than for the residence of human beings" (Scadding, 1884, p. 93). In short, an analysis of the characteristics of the site alone is not sufficient to account for the rise of the city.

The Situation

Many town sites have never been able to boast particular assets apart from a favorable position with respect to other points far and near. Was this also true for Toronto? Did the Toronto site possess such a situation or regional relations that it was bound to generate a large city?

Toronto has, without doubt, greatly benefited from being in what is agriculturally the most favorable part of the province. Although southern Ontario south of a line from Georgian Bay to Ottawa encompasses less than one seventh of the area of the province, it contains some 90 per cent of the provincial population.

It is in this part of the province that the good soils are found. The land is predominantly level to gently rolling, and its growing season is long enough and sufficiently warm and moist to support a variety of crops (Chapman and Putnam; Reeds). The soils belong to the Brown Podzolic and Grey-Brown Podzolic zones. To the south of the Shield these soils have nurtured a rich agriculture, which early provided Toronto with a prosperous market area. Bountiful crops of wheat, alfalfa, corn, tobacco, apples, grapes, peaches and vegetables are harvested annually (Figure 6).

Originally most of the area was densely forested. Deciduous forests prevailed in the southwest and jutted northeastward along the shore of Lake Ontario. The deciduous forest continues northward as far as the Canadian Shield, but this part of it contains fewer species.

To the north, the Precambrian Shield presents a very different landscape. Hilly and rocky with thin, infertile soils and many lakes, it offered little attraction to farmers. After having yielded large quantities of lumber, it had to await a new role as the playground for the great urban concentration farther south (p. 24).

Southern Ontario, including the Shield south of the Nipissing lowland, does not contain a great wealth of mineral resources. The rich deposits of silver, gold, copper and nickel that constitute the basis of Toronto's importance in the field of mining finance lie in northern Ontario and other parts of the country. Via the Great Lakes and the St. Lawrence, however, southern Ontario has easy access to coal and iron-ore deposits in both the United States and Canada. The proximity of Appalachian coal to Toronto has been a most significant element in the development of the city. Finally, there is an abundance of water power, huge quantities of which were generated first at Niagara and later on the Ottawa River and the St. Lawrence.

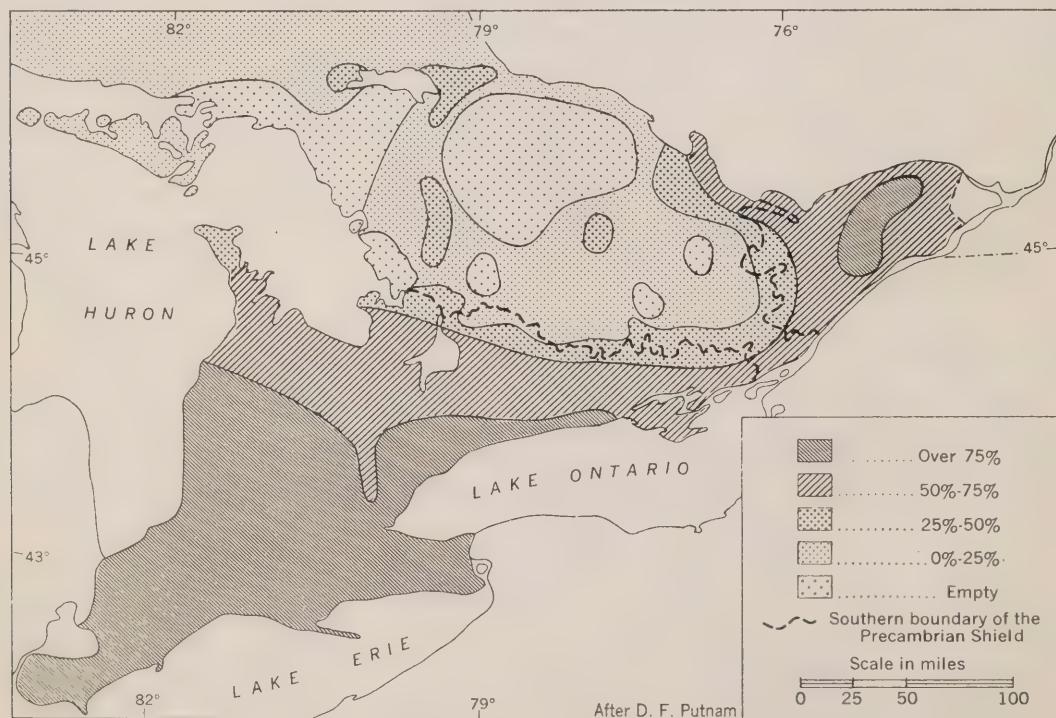


FIGURE 6. Southern Ontario, showing improved land as a percentage of farmland, 1951.



Such, then, are the advantages at the disposal of any town in southern Ontario, whether they be materials or power for its factories or markets for its goods and services. They have undoubtedly contributed to the growth of Toronto, especially since it became the main focal point of the transportation network in the southern part of the province. When the city was founded, however, agriculture was still in its infancy and the rich market that would later be vital to the city's growth did not exist. Of far greater significance was the part played by the framework of transportation routes in and around southern Ontario. The interpretation of the potential of the site in terms of its situation was the immediate cause of the founding of the city.

Location with Respect to Main Transportation Routes

Throughout its history, three routes have been of great significance to the Toronto site: the Ottawa and St. Lawrence rivers and the Mohawk-Hudson outlet.

The route through the Ottawa Valley gave Montreal direct access to the Upper Lakes and the Canadian West. The early traders and travellers went by canoe via the Ottawa and Mattawa rivers to Lake Nipissing and from there via the French River to Georgian Bay. It was via this route that the French under Champlain reached not only the Upper Lakes for the first time, but also the site of Toronto, which was reached by Etienne Brûlé in 1615. Later, the Ottawa Valley would channel western trade via the railways and highways directly into Montreal and the lower St. Lawrence. Toronto lies a considerable distance from this route and, before the building of the railways, did not have direct access to it.

The second route, the St. Lawrence River, also leads westward from Montreal. After portaging around rapids and overcoming the resistance of the Iroquois, the French reached Lake Ontario via this route for the first time in 1657. From Lake Ontario, the route guided them through Lake Erie to the Mississippi lowland and again to the Upper Lakes. It was this route that brought not only southern Ontario but also a large part of the present United States within the hinterland of Montreal. For shipping, however, the route did not become exploitable until after the building of canals around the rapids, and not fully exploitable until after the construction of the St. Lawrence Seaway, which opened it to all but the largest ocean vessels.

Also with respect to the St. Lawrence route, the Toronto site was not very favorably located. In the eighteenth century—and this includes the time after the city was founded—the main route through Lake Ontario ran from the St. Lawrence along the east and south shores to the Niagara River. The northwest part of the lake was more or less an isolated backwater, "off the beaten track." In the 1790's the government at Toronto complained repeatedly about the isolation of the town and the difficulty of maintaining postal communication (Cruikshank and Hunter, v. I, p. 22, v. II, p. 228).

In the eighteenth century the route via the Ottawa was more important for fur-trading than that via the St. Lawrence (Shortt and Doughty, v. IV, p. 542). For reaching the Upper Lakes the St. Lawrence was rather circuitous. Moreover, after the American Revolution it became exposed to possible foreign interference. An early interest consequently developed in alternative routes leading directly from

Lake Ontario to Georgian Bay and the Upper Lakes. Old maps show the Trent River route from the Bay of Quinte via the Kawartha Lakes and Lake Simcoe to Georgian Bay. Farther west, other routes are shown via Port Hope and Rice Lake, via Whitby, and up the Rouge, Don and Humber rivers. The headwaters of these streams were only a short portage distant from waters leading into Lake Simcoe or Georgian Bay. It is important to note that no serious topographic barriers exist north of Lake Ontario and that from earliest times travel between Lake Ontario and Georgian Bay was relatively easy. In comparison with the other routes, however, the three rivers in the Toronto area offered the shortest and most direct approach to the Upper Lakes. They constituted the so-called Toronto Passage, which, during the French period, was the most frequently travelled overland route between Lake Ontario and Georgian Bay. On eighteenth-century maps, the various streams, lakes and bays in the area that lay between the outlets of the Humber and Severn rivers and formed a part of the Passage are called Toronto. This is apparently the name the Hurons gave to their country between Georgian Bay and Lake Simcoe. According to Robinson it means "much or many," a reference perhaps to the numerous islands in Georgian Bay, or "land of plenty" (Robinson, 1953).

The third route of major significance for the Toronto site, the Mohawk-Hudson outlet, constitutes a much more direct link with the Atlantic Ocean than the St. Lawrence, which over a considerable distance runs more or less parallel to the Atlantic coast of North America. New York, moreover, has the advantage of remaining ice-free, while Montreal is winter-locked from December until April. The small gradient of the Mohawk route invited the early building of the Erie Canal between the Hudson River and Lake Erie. A lateral canal via Oswego connects the Erie Canal with Lake Ontario. The Mohawk route was followed by the main strand of highways and railways in eastern North America.

In the development of Toronto it was of the utmost significance that the Mohawk provided an alternate link between Lake Ontario and the Atlantic seaboard. The Toronto site was bound to profit from the rivalry that existed between Montreal and New York, located as it was within their overlapping spheres of influence.

Finally, no discussion of the situation of the Toronto site would be complete without a reference to the international border, which lets southern Ontario extend like a wedge into United States territory. Much of the general development of this part of the province is a response to the challenge of the border. There is reason, indeed, to wonder whether a large metropolitan city ever would have arisen on the north shore of Lake Ontario if there had not been an American Revolution, with its far-reaching consequences. Across the border extends the manufacturing belt that is the economic heart of the United States. Toronto, as is true of the rest of southern Ontario, has always been in easy contact with ideas, capital and initiative emanating from this gigantic concentration of industrial and commercial activity.

In evaluating the space relations of the Toronto site, it must be concluded that on the north shore of Lake Ontario there was no major natural focal point of transportation routes as at Montreal or Niagara. The busily travelled Ottawa

route lay far to the north, while control over the St. Lawrence-Niagara route seemed threatened. The Mohawk route was situated in a foreign country, which was hostile at the time of the city's founding. There was no site that was bound to give rise to a large city. Indeed an analysis of site and situation alone does not suffice to explain the birth and growth of the city. All that can be said about the importance of the situation of the Toronto site is that there were certain potentially favorable aspects: the location with respect to the Toronto Passage, the rest of southern Ontario and the neighboring areas of the United States and with respect to the competing spheres of influence of Montreal and New York. Most of these possibilities, however, were not apparent at the time of founding. Only the route to Georgian Bay in conjunction with the harbor seemed to offer some promise.

The Founding of Toronto

The French Period

When, in 1720, the French selected the Toronto site to build a post, they ushered in the first European settlement. The choice came late in terms of French exploration and development in North America, having been prompted by the expansion of the English fur trade in the Lower Lakes. At first, the post was little more than a simple stockade, and in 1730 it was abandoned because it interfered with trade at Fort Niagara, of which it was a dependency. In 1750, the French returned and re-established the post on the Humber River. Since trading possibilities seemed promising, a more substantial fort was built the following winter. It was called Fort Rouillé but was generally known as Fort Toronto. The French destroyed it in 1759 to prevent its falling into the hands of the English (Robinson, 1947).

In the broad scheme of eighteenth-century North American trade and defence, any fort at Toronto had limited strategic significance because it stood marginal to the main continental routes. But it did command the entrance to the Toronto Passage.

In 1615 Champlain explored the Passage from the north, and from the outset the French took note of its location between the two great trunk routes of the St. Lawrence and the Ottawa. It was not until a century later, however, when English traders began to penetrate the Lake Ontario basin, that the French reappraised the significance of the Toronto Passage and built the aforementioned posts on the Toronto site. They believed it to be a good location from which they could collect furs from the area between Lake Ontario and Georgian Bay, thus preventing the Indians from trading with the British at Oswego and Albany.

During the French regime, the short cut via the Humber River to the Upper Lakes was used frequently by Indians, missionaries and other travellers. In the course of the eighteenth century, the route seems to have gained in importance as such. Its value as a trade route to the Upper Lakes, however, remained extremely limited. This is best shown by the fact that the French established their Toronto posts late in comparison with their other forts on the Lower Lakes and maintained them for only 19 years. Intensive long-distance fur trade would undoubtedly have attracted the French much earlier and would probably have resulted in settlements as on the Detroit River.

British Rule

After the defeat of the French in 1763, more than 25 years elapsed before the British seriously considered building a settlement on the Toronto site. At different times a small post was maintained by individual fur traders near the ruins of the French fort. One of these was Jean Baptiste Rousseau, who in 1770 obtained a licence to trade at the mouth of the Humber River; but the influential merchants in Albany strongly opposed the building of a large post with which they would have to compete. They tried, furthermore, to prevent Montreal traders from invading the region (O'Callaghan, v. II, pp. 498 and 510). In the Indian trade, the merchants of Albany had an advantage over those of Montreal, because manufactured goods used in the trade were both cheaper and better at Albany than in the St. Lawrence port. This resulted, indeed, in trade, between the two cities that was both legal and illegal, and interference with it would probably have forced the Albany traders to push westward into the Lake Ontario basin at a much earlier date (Lunn). With the onset of the American Revolution, Albany's influence waned, and soon the Montreal traders gained complete control. Because they were convinced that the Detroit route would eventually be obstructed, their interest in the Toronto Passage as an alternative trade route increased.

In 1784, several Montreal traders, including Robertson, Frobisher and McTavish, applied for land grants along the Toronto Passage to engage in trade with the Northwest. Haldimand argued that he had no authority to grant land and refused, therefore, to appropriate it from the Indians (Public Archives of Canada, Note E of work cited in references). Later, De Rocheblave, the last British governor of Illinois, petitioned the Governor, Lord Dorchester, for a grant of 1,000 acres at the Toronto site, including the Island, and for a trade monopoly along the Toronto Passage. Convinced of the commercial potential of the route, De Rocheblave planned to build a road to Georgian Bay. In different memoranda, first to Lord Dorchester and later to Simcoe, he related his optimism. Dorchester seems to have been impressed with De Rocheblave's views, for in a letter to the surveyor concerned he wrote: "Sir John Johnson has been directed to take such steps with the Indians concerned, as may be necessary to establish a free and amicable right for the Government to the interjacent lands not yet purchased on the north shore of Lake Ontario for that purpose (i.e. to join the Loyalist settlement of Niagara with the one west of Cataraqui) as well as to such parts of the country as may be necessary on both sides of the proposed communication from Toronto to Lake Huron" (Ontario, p. 379 of work cited in references).

Accordingly, the purchase of land along the north shore of Lake Ontario, which had begun in 1784, was continued in 1787 and 1788. The block purchased in the Toronto area extended from the southwest corner of present-day Scarborough Township for 14 miles to a point west of the mouth of the Humber River. It was rectangular and followed the trend of the Humber, which ran through its western part. The Schomberg River paralleled the northern limits of the purchase (Ontario, p. 118 of work cited in references). An agreement with the Indians was ratified in the summer of 1788, and the Toronto area became part

of the district of Nassau. Later known as the home district, this encompassed an area along Lake Ontario west of the Trent River. In 1791, the district was divided into 11 townships, the westernmost of which included the Toronto site and was called Dublin, then Toronto and, finally, York. In spite of applications for land grants along the Toronto Passage and plans for a town, no development took place. Because of the slowness of the mails and the dissolution of the Land Board (Ontario, pp. 329 and 413 of work cited in references), Lord Dorchester's order of 1791, that 1,000 acres be granted to De Rocheblave and 700 each to two other grantees, was never executed. Thus, when Bouchette surveyed Toronto Harbor in 1793, he found only two Mississauga families living near the shore of the bay and, according to him, they were the only human beings for many miles around (Bouchette, 1832, v. I, p. 89). Early maps show an Iroquois village called Teiaagon, Tegagon or Tegoagon, some 2 miles up the Humber River, on left bank, but all traces of it disappeared before the end of the century. Similarly, a later Mississauga village on the other side of the river was abandoned before the founding of York.

Simcoe's Plans and Their Implementation

The separation of Upper from Lower Canada in 1791 brought about the appointment of John Graves Simcoe as first Lieutenant Governor. While spending the winter of 1791-92 in Quebec City en route to Upper Canada, he studied the geography of the territory from maps and reports. Furthermore, by interviewing people who had first-hand knowledge, Simcoe gained insight into conditions prevailing in the territory. By spring he was convinced that the development of the resources of the colony and the building of an effective defence system were interrelated and had to be undertaken within the framework of a single plan. Strategic locations such as natural harbors, the confluence of rivers and the termini of portages were to be selected as garrison posts and connected by military roads. Near the bases, which he expected to grow rapidly into important towns, he planned to settle disbanded soldiers, for whom, as well as for other pioneer settlers, the towns would provide a ready-made market. Military personnel were to be employed for the building of roads and bridges. Simcoe was convinced that this was the only way to create rapidly a well-populated and self-supporting frontier territory.

In spite of opposition from Lord Dorchester, Simcoe went ahead with his plans. Dorchester specifically rejected Simcoe's intention of using troops and the defence organization to promote the expansion of settlement. Yet, Simcoe's dual aim of an effective defence and economic development seemed to come to a natural focal point in the site of Toronto. Here he recognized the possibilities of a first-class military, especially naval, arsenal and a powerful commercial emporium. While still in Quebec City, Simcoe wrote to the Colonial Secretary: "Toronto appears to be the natural arsenal of Lake Ontario and to afford easy access overland to Lake Huron" (Cruikshank, v. I, p. 144). As he became more familiar with the site and its situation, his enthusiasm for it seems to have grown. In his letters he considered it the best harbor on the lake, a place very easy to defend where vessels could be built at little cost. He emphasized not only

the strategic significance of the route but also its commercial potential. In his view there was no doubt that the Northwest Company would make considerable use of the Toronto Passage and that the new town would eventually replace Michilimackinac (Cruikshank, v. I, p. 396, and v. II, p. 110).

Undoubtedly Simcoe was greatly influenced by what De Rocheblave and others had said and written about trade possibilities in their applications for land grants. Besides, anxiety about the continued use of the Detroit route increased steadily. After Simcoe's survey of the Toronto Passage in the summer of 1793 and his pleasure at finding a good harbor on Georgian Bay, at its northern end, the decision to build a town on the Toronto site was made. In his scheme of development, however, London was to be the capital.

Simcoe's Decision Reappraised

Simcoe's evaluation of the potential of the Toronto site should be viewed with respect to other locations on Lake Ontario. Compared with Toronto, Kingston had a head start and very early carried on a lively trade (Spelt, pp. 42-43). Deputy Surveyor General Collins described its harbor as "safe, commodious and well-sheltered" (Ontario, pp. 347-363 of work cited in references). Kingston Harbor, on the other hand, was difficult to defend. It was frozen over longer than Toronto Bay, and ice extending across the St. Lawrence River from early December to early April exposed it to land attack from the south. Furthermore, the port did not command a convenient route to Georgian Bay.

Another attractive site was at or near the isthmus between Prince Edward County and the mainland. Some saw greater possibilities there than at Toronto, as is shown by their selection of land grants. Unlike Kingston, this site had access to a route to the Upper Lakes via the Trent River, which was found, however, to be unsuitable for strategic and commercial development (Glazebrook, p. 40).

Whitby, just east of Toronto, had a small harbor that was safe in terms of the needs of the sailing vessels of that time. It was highly satisfactory and had a better entrance than the Toronto Harbor. Hodder (1857) describes the entrance in the 1850's as being 250 feet wide and 14 feet deep. Whitby also had an overland route to Lake Simcoe and Georgian Bay, but it was a little hillier than the Toronto Passage.

Finally, Hamilton Bay should be mentioned. This harbor undoubtedly had excellent possibilities, but no convenient route led from it to the Upper Lakes. Moreover, it was probably considered too exposed to enemy attack and less centrally located with respect to Lake Ontario than some other sites along the north shore.

All these harbors had certain advantages, but none commanded such a good route to the Upper Lakes as Toronto Bay. To this Simcoe attached the greatest importance.

Simcoe's assessment of the trading potential of the Toronto Passage was too optimistic. Although the French had known about the route from the time of Champlain, it remained largely a convenient short cut for travellers and very few furs were shipped along it. Even after the Detroit route had become exposed to the possibility of United States interference, the fur trade continued to prefer

the Ottawa and St. Lawrence routes. When Simcoe visited Georgian Bay in 1793, he met a French trader who obtained supplies and forwarded his goods via Michilimackinac. Apparently this was more convenient than to ship via the Toronto Passage or the Trent system (Hunter, v. I, p. 21). The fur trade carried on at the Toronto site during the eighteenth century was based only on a limited territory fronting on Lake Ontario. Simcoe observed in one of his letters: "... persons who have been used to the trade between Montreal and the Lake Huron by the Ottawa River, having recently passed to this communication, express their satisfaction at its discovery [sic] and are surprised that it has not been hitherto made use of" (Cruikshank, v. III, p. 178.). The concept of a potentially important trading artery with a flourishing centre at its southern terminus had nevertheless been formulated. Essentially it was a response to the challenge of the United States border, and arose from a re-evaluation of the transportation framework that led directly to the founding of the city on Toronto Bay.

In retrospect, especially from the point of view of planning, the founding of Toronto was a bold move. The nearest white settlements were at Niagara and Kingston, 75 and 180 miles distant, respectively. Besides, the site was covered with a thick forest that left only faint traces of French and Indian occupancy. In this setting Simcoe conceived an entirely new element in the settlement of Upper Canada and, in doing so, left an indelible imprint on the geography of Ontario.

FACTORS IN NINETEENTH-CENTURY GROWTH

The development of Toronto as the leading city in southern Ontario derives in large part from factors in its early growth. Toronto did not originate as a market and service centre for a surrounding rural population. Instead, the town was started first and its founding encouraged the clearing and settlement of its environs. Strangely enough, the factor that the policy makers of the time considered only temporarily significant was to have the most profound influence on the growth of the city. It was the choice of the town as capital of Upper Canada.

The Military Function

Uppermost in Simcoe's plan for early York was the building of a large military base, the bay and the peninsula constituting an ideal site for fortifications. Simcoe argued that York was far enough removed from the United States border to suffer little from an unexpected attack from that quarter. Further, Lake Ontario gave access, at least during the navigation season, to most of the settlements while the Toronto Passage offered a safe overland route to the Northwest. He also maintained that timber stands in the area were excellent and could support the building of naval ships. In short, York would be an advantageous rallying point if the enemy invaded Upper Canada (Cruikshank, v. I, p. 343).

To Simcoe's great annoyance, however, Dorchester minimized the importance of military facilities at York and refused approval to most of his plans. It turned out in fact, that the fortifications at early York were very poor and that the town was almost undefended. Simcoe had erected barracks and a stockade on his own account, and in 1796 his successor could not obtain the funds to have them repaired (Cruikshank and Hunter, v. I, p. 90).

Nor did Dorchester support Simcoe's plans for the building of shipyards at York. He had decided to make Kingston the main naval base for Lake Ontario, and it was there that the most powerful warships were built (Stanley and Preston).

Thus Simcoe's plans to develop York into a major military centre were never implemented. The officers and men stationed there in the early days never numbered more than 200 at a given time. They were used for the erection of government buildings and the construction of roads. Their need for provisions had little influence on the expansion of farming in the surrounding country. All in all, the part played by the military in the early growth of the town and district was relatively insignificant.

Early Trade

The importance Simcoe attached to the Toronto Passage as a potential trade route led to one of his first tasks—the building of a road to link Toronto with the Northwest. The route, which was to become Yonge Street, was found several

miles to the east of the old trail up the Humber River. The road, completed in 1796, lay almost due north and south. It ran for 34 miles, from York to Holland Landing, where cargo would be transferred from boats that had sailed up the Holland River from Lake Simcoe.

In spite of the completion of Yonge Street, little trade developed. It is true that traders from the Northwest Company had petitioned for land grants along the Toronto Passage, but for the most part the company remained indifferent to the prospect of establishing new commercial patterns. Interpreting the Northwest Company's gift of £12,000 for the improvement of Yonge Street, as reported in the *Upper Canada Gazette* of March 9, 1799, Robinson says that the company considered the entire route from Toronto to Michilimackinac as part of Yonge Street and that the money was for the building of a canal at Sault Ste. Marie, at its northern end (Robinson, 1947). The Ottawa remained "la grande route." In fact, the company viewed with concern the proposed division of the old province of Quebec, fearing that the new boundary would exclude part of the Ottawa from the territory over which it exercised most control (Robinson, 1943).

For a brief period, just before and during the War of 1812, the Northwest Company showed increased interest in the Toronto Passage, but because of financial difficulties and the company's absorption, in 1821, by the Hudson's Bay Company, this interest was short-lived. Thus the fur trade, a cause of considerable speculative enthusiasm in eighteenth-century planning, did not develop.

Other evidence points up the insignificance of trade. The very poor condition Yonge Street remained in during its early life testified to the lack of traffic. Many farmers complained about the difficulty of using the route to bring produce to York. In 1804, for example, 55 freeholders on Yonge Street petitioned for improvements.* It may also be emphasized that Yonge Street was not extended south of Queen Street until 1818. If a large trade had developed, a wharf would have been built at the foot of the street and the condition of Yonge Street north of Queen would have been improved much earlier. As late as 1847, a team of oxen was stationed just north of Queen Street to haul wagons out of mud holes.†

Perhaps the most convincing evidence of the lack of trade along the route was the slow development of road connections between Lake Simcoe and Georgian Bay and the late and hesitant founding of towns in that area. Simcoe had expected Gloucester or Penetanguishene to become "the most considerable town in Upper Canada" (Cruikshank, v. III, p. 227), but by 1851, all communities on Georgian Bay still had fewer than 200 inhabitants each (Spelt, Figure 7). Hunter quotes one who travelled in 1819: "At the present time there are no houses nor stores on the north side of Simcoe at the portage, which makes it very troublesome, and also much of the goods transported are liable to be injured by weather. Since the steamboat has commenced to sail on Lake Erie, the cheapest and most expeditious mode of sending down the furs from the interior is by that route,

**Journal, Legislative Assembly of Upper Canada*, February 23, 1804.

†*Toronto Globe*, April 14, 1847.

although it is four hundred miles longer than by Simcoe. There is nothing but one schooner upon the Lake (Simcoe), which is sufficient for all the trade at present" (Hunter, v. I, p. 29).

Simcoe's expectations for the development of York as a trade centre were realized little better than his military plans. They nevertheless stimulated the building of Yonge Street and helped to promote settlement. Moreover—perhaps most important—the vision and hopes remained. The traveller's account, part of which has just been quoted, included this observation: "It is very probable that at no very distant period this will become the most frequented of all the routes to the North West." A newspaper of 1835 contains the following: "Toronto is on the high road to Lake Simcoe and a vast tract of fertile land between that and Lake Huron, and is also on the direct line of communication with the Far West, the Michigan and the immense territory beyond, whose produce will inevitably pass through Toronto, if the necessary facilities are created" (Innis and Lower, p. 39). The paper suggested that a railroad be built to prevent "the delay and uncertainty of the circuitous route of Lake Huron, the St. Clair, Erie and the Welland Canal." Thus the old hopes and expectations remained strong to influence thinking in the railway era.

York, Capital of Upper Canada

Dorchester's decision to make York the capital of Upper Canada was received with little enthusiasm, not only by Simcoe but also by government officials in general. Yet it was this decision that proved to be the most important in the growth of the young town and laid the foundation for its future metropolitan dominance. The inaccessibility of York forced the building of roads, which increasingly converged on the capital and gave historical basis to the convergence of rail routes in the nineteenth century and highways in the twentieth. The function of government brought to York public officials who, with their greater purchasing power, supported more specialized retailing than was found in Hamilton or London. This support later stimulated the rise of a few specialized manufacturing industries and a more flourishing wholesale trade. From the outset, in addition, the elite (the Family Compact) laid the foundations of financial institutions by winning the charter of the Bank of Upper Canada from Kingston. Development, however, came slowly, and it was not until the second decade of the century that York became more firmly established as the capital of Upper Canada.

In his broad plan for the development of the colony, Simcoe considered London the most suitable location for the administrative centre, and he continued to press this argument until his retirement. Besides, strong opposition to York existed among various officials, who did not want to move from Newark (Niagara on the Lake). They had extensive property in the Niagara district and feared it would decline in value. Everything in the new capital, on the other hand, was appallingly expensive. They were encouraged in their attitude by the fact that, during the first years, Parliament continued to meet occasionally at Newark. All in all, there was much uncertainty about maintaining the capital at York, and in many ways it retarded the town's early growth. For example, when cautioned against undertaking large expenditures at York because of the possibility of its

not becoming the seat of government, Russell replied: "These different rumors alarm us all and will of course frighten the officers of government from building at York. . . ." (Cruikshank and Hunter, v. I, p. 139).

The burning of the Parliament Buildings and other government offices by the Americans during the War of 1812 raised once more the question of the suitability of York as capital. Some of the anxiety among interested persons is evident in the letters of Strachan, the leading Anglican clergyman, who tried to show that York was a better locale for the government than Kingston (Spragge). By that time, however, the problems involved in a removal of the capital had grown more complex and the government decided to rebuild the Parliament Buildings. York's function as capital was saved, at least for the time being (p. 40).

The most important legacy of York as capital was undoubtedly the establishment of a pattern of land communications. It has already been pointed out that the site of Toronto, unlike that of Montreal, was not a natural focal point of routes; and the fact that the fur trade passed it by reflects its marginal location. In spite of this, its being chosen as capital made it a focus of land routes for Upper Canada and thus resulted in the establishment of a pattern of communications that was to enable the city to emerge as a leading distributor of goods and services.

York, in the first few years of its life, had an atmosphere of dreary isolation. Lying at the dead corner of Lake Ontario, away from the main lanes between Kingston and Niagara, it was slow to establish regular shipping connections. At first, not even government vessels called regularly, and in 1797 Russell received permission to build a small armed vessel to maintain communications. Mail service was poor, and during storms and in the winter York was virtually cut off from the rest of the colony.

The government at York did its utmost to improve communications as soon as possible. In their correspondence, both Simcoe and Russell repeatedly refer to the problem. In 1800, Russell wrote: "I shall look forward with pleasure to the time when the opening of roads which communicate with the capital will enable me to meet you at a season when public business may be dispatched without private inconvenience."*

In any event, road-building began in earnest. Yonge Street, uppermost in Simcoe's plans, was open for traffic between York and Holland Landing by 1796 but the road was in poor condition. In September 1793, a party of soldiers began the construction of Dundas Street from the head of Lake Ontario to Simcoe's proposed capital site on the Thames River. This road was extended to York in 1800. The road from Kingston to York was finished in 1801, but for many years it remained hardly more than a trail.

To ensure rapid improvement of the roads, Simcoe kept close control over the granting of lots bordering them. In April 1796, it was decided that no title would be given to a lot on Yonge or Dundas Street unless residence had become a fact within one year after the granting of permission to settle. Two years later, even stricter regulations were drawn up for Yonge Street: a house at least 16 feet

*Journal, Legislative Assembly of Upper Canada, June 6, 1800.

by 20 feet had to be erected within one year; at least 5 acres had to be cleared and fenced; and the street in front of the lot had to be opened for half its width (Patterson, p. 8). Simcoe removed the reserves on Dundas and Yonge as much as possible to the back concessions to speed continuous settlement along the road. He thought that farmers living on Yonge Street would assist with their wagons and sleighs in the transportation of merchandise (Cruikshank, v. III, p. 227).

The selection of York as capital resulted in the removal of government officials from Newark. In compensation for the loss of property values and other investment in that community, they received additional grants of land in and around York. As the latter town grew and its land values rose, their original reluctance to move gradually weakened. Thus, more and more, the destiny of York and the colony came to be charted by an elite conscious of the close relation between the prosperity of the town and their own welfare. Singly or in groups and especially before 1820, some members of this privileged class, called Family Compact, had strong business interests in addition to their political functions (Saunders, pp. 165-179). These citizens profoundly influenced the growth of York and played a leading part in laying the foundations for the city's economic power.

In this connection an interesting difference existed between Toronto and Montreal. Creighton formulates it as follows: "Montreal was commercially far more powerful than York; but it stood isolated in a province which had never accepted its materialist philosophy and it had not been able to acquire open control of the apparatus of state. The merchants and their sympathizers had been almost completely driven from the assembly; and in the councils they were faced by the survivors of the seignorial class and the French-Canadian professional men."

The same writer, on the other hand, also says: "York may have been commercially weaker than Montreal, but it was unified as Montreal was not, for no essential conflict of views and interests separated the merchants from the professional group. Usually they both helped, and seldom either hindered, that amicable co-operation of business and politics which was one of the features of Upper Canada Life" (Creighton, p. 266).

The intertwining of business and political interests is best illustrated by the development of banking in York. Furthermore, the financial institutions established early in the nineteenth century placed Toronto on a road that was to lead to its being one of the foremost financial centres of the twentieth.

In the early 1800's Kingston was still the economic heart of the new province. By 1819, it had three banks, while York had acquired its first, a branch of the Bank of Montreal, only the previous year. A group of Kingston merchants had, moreover, petitioned for a charter for the new Bank of Upper Canada. The provincial government referred the petition, together with a similar one submitted by York interests, to the home government. When, after much delay, the approved charter for a Bank of Upper Canada was returned to York, the Legislative Council substituted the names of York citizens for the original Kingston list and made the provision that the head office would be not in Kingston, not even in York, but at the "seat of government." As Shortt pointed out, the Family Compact wanted to be able to take the charter along if the administrative centre was moved again (Shortt, 1897).

It is of interest that York, which had a population of only 1,240 by 1820, could not muster the economic strength to organize the new bank properly. It had difficulties in obtaining the initial capital stipulated in the charter, even after the charter had been amended and the required sum had been reduced by half to £10,000. It was rumored that the bank received an unauthorized grant from the military treasury.

From the outset, the bank was very much a government affair, four of the 18 directors being appointed by the government and 12 being members of the Family Compact. The fact that the government held 25 per cent of the stock gave substance to its currency, which was circulated widely through Upper and Lower Canada and in adjacent states (Shortt and Doughty, p. 621).

For more than a decade, the Bank of Upper Canada held a monopoly and prevailed upon the Legislature to deny all further petitions to establish banks. Financial institutions, albeit on a small scale, became deeply rooted in York, and the foundations of future growth were laid. Kingston interests, however, were by no means willing to concede financial leadership to York. In 1832, a Kingston group succeeded in breaking York's monopoly and was granted a charter to establish what was called the Commercial Bank of the Midland District. Kingston could still command considerable economic strength, and within a few years the assets of the new bank were as great as those of the Bank of Upper Canada. The distinction between York and Kingston nevertheless came clearly into focus, the latter being for the most part an economic satellite of Montreal, on which its prosperity depended. York's financial growth was independent—premature in terms of the town's economic strength and forced by the manipulations of the Family Compact,* but independent of Montreal. Thus began in York, in the early nineteenth century, the growth of a small financial community divorced from and rivalling that of Montreal. This was of great importance in the rise of Toronto as a leading financial centre.

The building of roads, the emergence of financial institutions and the working of the government all affected the growth of York. The elite gathered in the town supported a more varied retail function than any existing in neighboring communities. Shops and services were established that could not be found elsewhere in Upper Canada. Because of the services and amenities available, York soon became a preferred place of residence. Many immigrants arrived and remained. At the same time, the expanding road network helped to establish trading patterns between town and umland, and these were reinforced and enlarged with the building of railways in the nineteenth century and highways in the twentieth. Finally, this economic growth supported a variety of local manufacturing industries.

Also of great importance was the formation of capital resources, especially after 1830, for which several explanations may be offered.

*After 1820, most members of the Family Compact were less inclined to become deeply involved in commerce and finance. It is true that their connections with the Bank of Upper Canada remained strong and that they were interested in various ventures such as that of the Welland Canal Company, but the Compact did not grow into a "business-cum-politics elite" (Saunders, p. 173).

Immigration to Upper Canada accelerated in the 1830's and Toronto became a major dispersal centre for farmers moving on to rural areas and an attractive city for those seeking investment opportunities. In 1833, some 21,000 immigrants came to the province, of which about one third landed at Toronto and one third at Hamilton and nearby ports. By the beginning of July 1834, the immigrants who had already reached Toronto numbered 8,000 (Innis and Lower, p. 117).

The immigrants brought with them substantial amounts of cash. In 1831 and 1832, new arrivals deposited no less than £300,000 (Guillet) in the Bank of Upper Canada, a significant sum when it is recalled that 10 years earlier it was difficult to raise £10,000 to bring the bank into existence. In the summer of 1834 a newspaper reported as follows: "Our settlers of this summer are generally persons of capital, who have emigrated to Canada to join friends already settled here. Most of them will locate in well-cleared and populous townships" (Innis and Lower, p. 117). The Toronto area undoubtedly retained a considerable number of them.

The other major source of capital was trade. In the 1830's, the ports on Lake Ontario and the St. Lawrence River began to export increasingly larger quantities of lumber to the United States. The export of wheat to that country developed later and in the late 40's it rapidly became important. Large quantities were also sent in bond to the port of New York and shipped to Europe (Spelt, pp. 73-74). Greater amounts of cash began to circulate in the southern part of the province, more and more of which was served by Toronto traders. As late as 1842, wheat was accepted in Toronto as payment for groceries and articles. By 1850, however, cash sales seem to have become the rule (Spelt, p. 79). Among the fortunes built on the wholesale trade was that of Senator McMaster, one of the principal founders of the Canadian Bank of Commerce.

Finally, capital formation resulted directly from the physical growth of the city and its surroundings. The many persons who received substantial land grants at the time of founding received no more than they were entitled to, but the grants included important tracts of land just outside the city. Once the town seemed to have taken root, land values increased rapidly and the capital gains thus made represented another element in the formation of local wealth. For example, one and a quarter acres of land on Yonge Street near King that cost about \$400 in 1808 were valued at \$1,500,000 in 1897, buildings excluded (Durand).

The growth of the city should not, of course, be measured entirely in economic terms, for strong forces were laying the foundations of cultural and educational institutions as well. Government and Church, together with the leading citizenry, early felt the need for full-fledged educational facilities. Even before he set foot in Upper Canada, Simcoe commented on the desirability of having a university in the capital. In 1798, the Executive Council referred unanimously to "York as entitled to the University, both as being the Seat of Government, the Legislature, and the Courts of Justice and as being far the most convenient spot in the Province for all general purposes" (Cruikshank and Hunter, v. III, pp. 5 and 111).

In 1812, the government invited John Strachan, an able Anglican clergyman who had gained fame as a teacher in eastern Ontario, to come to York as rector

and headmaster of the District School. Strachan soon became a member of the Family Compact and played a leading part in establishing institutions of higher learning, out of which was eventually to emerge the University of Toronto.

Toronto and the Atlantic Ports

In any commentary on economic growth in the nineteenth century, it must be taken into account that Toronto had two outlets to the Atlantic: the St. Lawrence via Montreal and the Mohawk-Hudson through New York. Each of these ports aspired to include Toronto within its hinterland; and to attract more trade, shipping privileges were granted and canals and railroads built. There is no question that the location of Toronto in an area where the hinterlands of Montreal and New York City overlap has been a factor of the greatest significance in the rise of the city. It not only protected Toronto against complete subservience to either port but enabled the city to become the focal point of a rapidly expanding region of its own.

In this context, reference must also be made to a growing resentment against Montreal that prevailed during most of the nineteenth century. In the beginning, Toronto was firmly held within the orbit of the St. Lawrence port, through which nearly all goods to and from Europe had to flow. Indeed, Montreal functioned as a great entrepôt and its merchants, enjoying a virtual monopoly on trade, demanded charges that were excessive in the eyes of the Toronto clients. It was felt that Montreal enriched itself at the expense of Upper Canada. Soon the St. Lawrence was no longer considered the natural outlet for the province (Tunn and Lower, p. 178), and Toronto began to look for an alternative outlet.

The French had approached the Toronto site from the north because the Iroquois blocked their ascent of the St. Lawrence. The latter were instigated and supported by Dutch and English traders operating from bases on the Hudson River. The rivalry between the Hudson and St. Lawrence outlets did not subside after New France had been conquered by the British (p. 32), and the competition gained new momentum when once more after 1784, the two gateways to the Atlantic found themselves part of different and opposing political frameworks. Although Jay's Treaty, signed in 1794, granted the fur traders free movement across the new boundary, the United States began to interfere more and more with the Montreal-oriented trade. Pressure emanating from the lower Hudson continued to grow. The opening of the Erie Canal in 1825, followed three years later by that of the Oswego extension, aroused a great deal of interest in Toronto about the possibility of using New York as an entrepôt. Although these canals were of great importance to Toronto, the city's capital was not involved in their financing. The Welland Canal, completed in 1829, was, on the other hand, strongly supported by the Family Compact. It is not clear why the Compact had so much interest in the venture (Aitken, p. 71). Perhaps the only explanation is that the group saw in the canal a means of strengthening the trade potential of Toronto.

While New York obtained better and better access to the Lower Lakes, Montreal's connection with Lake Ontario continued to be a poor second. Canals had circumvented the rapids in the St. Lawrence since 1783 but were not satis-

factory. Had it not been for the St. Lawrence barrier, the grip of the river's outlet on Toronto would undoubtedly have been much stronger. Having no seaport of their own, the founders of Upper Canada expected Montreal to serve as their seaport. The tariff revenue was to be shared by both Upper and Lower Canada, but a perpetual controversy developed over its allocation and no agreement was reached concerning the improvement of the St. Lawrence canals. Furthermore, French Canada, centred in Quebec City, dominated Montreal and was reluctant to promote the improvement of navigation above that city, which did not become a separate seaport until 1832. Thus Toronto's lack of a satisfactory connection with the lower St. Lawrence continued, and in the 1830's there developed in Upper Canada movements to annex Montreal and so obtain better navigation facilities (Innis and Lower, pp. 179-182; Creighton, p. 284). It is not surprising, therefore, that in the course of the nineteenth century the interest of Toronto traders in the port of New York increased.

As early as 1805, Quetton St. George advertised extensively that he brought in large shipments from New York.* In 1829, newspapers in Upper Canada told with satisfaction that merchants were importing foreign goods directly—i.e. through New York—and that this would eventually "eclipse the Lower Canadian emporium." Goods were said to be selling in Toronto stores 35 per cent cheaper than in Montreal because the Toronto merchants paid cash while those in Montreal purchased in England at 12 to 18 months' credit (Innis and Lower, p. 244). In 1835, a motion was submitted in the Legislative Assembly to request the Throne to negotiate with the Government of the United States for the free movement of goods to Upper Canada via New York (Creighton, p. 300). With the passage of the Drawback Act in the United States in 1846 this free movement became a reality. It was now possible for merchants in Upper Canada to import goods through New York without paying a tariff to the United States Treasury. In Toronto, in particular, the wholesale trade flourished because the merchants were able, with increasing success, to lure more and more country dealers away from the Montreal connections. Toronto broadened its umland at the expense of Montreal, adding substance and variety to its economic structure. In a typical advertisement published in 1851 a Toronto firm asserted that it imported directly from the manufacturers and that it could offer goods to country dealers and the trade in general at lower prices than anyone else (Rossell, p. 438).

Montreal suffered serious trade losses. It has been estimated that the opening of the Erie Canal reduced that city's trading area at least by half. Montreal not only lost most of the United States Midwest to the New York hinterland but was challenged, especially after the passage of the Drawback Act, in its hegemony over Upper Canada. An example of Montreal's trade losses is the decline in refined-sugar imports from 1,600,000 pounds in 1844 to 895,000 pounds in 1846 and in tea imports for the same years from 937,000 pounds to 603,000 pounds (Creighton, p. 359). Albion estimated that by 1850 the Canadian import and export trade via the United States was nearly as large as the direct trade by sea (Albion, pp. 603-629).

*Toronto Board of Trade. Centennial Souvenir, 1893, p. 196.

Improvements on the St. Lawrence canals, completed in 1849 with the deepening of all sections to at least 9 feet, made the new system, in a sense, a full-fledged predecessor of the modern seaway. On July 17, 1856, the *Dean Richmond* left Chicago and exactly two months later reached Liverpool. This example of direct overseas trade was followed by many others (McKee, pp. 26-36), but expectations that trade at Montreal would increase after the inauguration of the new waterway were, on the whole, not realized. The completion of the St. Lawrence canals took place about 20 years after the opening of the Welland Canal and was thus too late to put New York at a serious disadvantage. The repeal of the Corn Laws in Great Britain and the bonding legislation enacted in the United States had robbed the St. Lawrence route of some of its main advantages. The Americans, moreover, were ready with railway plans. In the meantime, the commercial circles in Toronto were extremely pleased at being able to shake off the "Montreal yoke."

By the middle of the nineteenth century Toronto had established itself as the main wholesaling and distributing centre for a large area north and west of Lake Ontario, which, in the following decades, would be rapidly expanded by the building of railways.

The Impact of the Railways

A study of railway development in the nineteenth century gives insight into Toronto's economic growth, its orientation toward the hinterland and its relation with Montreal. The role of the Toronto Passage in the economic development of Toronto is finally defined and the city turns increasingly to the Northwest by building a railway, first to Georgian Bay, then to the Shield and finally to the Canadian West (Figure 8).

Just as the building of the Erie Canal forced the improvement of the St. Lawrence canals, so the expansion of railways in the United States stimulated the development of railways in Canada. In this period the position of Toronto within both the Montreal and the New York spheres becomes more clearly defined.

The Great Western, which gave Toronto its first rail link, was built mainly to carry traffic between New York State and Michigan through southwestern Ontario (Currie, p. 220). It was completed in 1854 and ran from Niagara Falls to Windsor via Hamilton. By the end of 1855, a link had been established with Toronto via the Hamilton and Toronto Railway, a small independent company which was amalgamated with the Great Western in 1856. It is significant that Toronto obtained a rail link with New York before it had one with Montreal. Besides, the extension of the Great Western shifted trade away from Hamilton and brought southwestern Ontario into Toronto's sphere of influence (Innis and Lower, p. 664). In a short time Toronto became firmly established as the economic capital of southwestern Ontario (Careless, p. 228).

Montreal's bid for the Ontario hinterland came with the building of the Grand Trunk, which reached Toronto a year later, in October 1856. The Montreal group looked upon Toronto not as a western terminus but as a valuable market along a much longer route that would run via Guelph and Sarnia to tap the United States Midwest, traditionally part of Montreal's hinterland. At first, it was

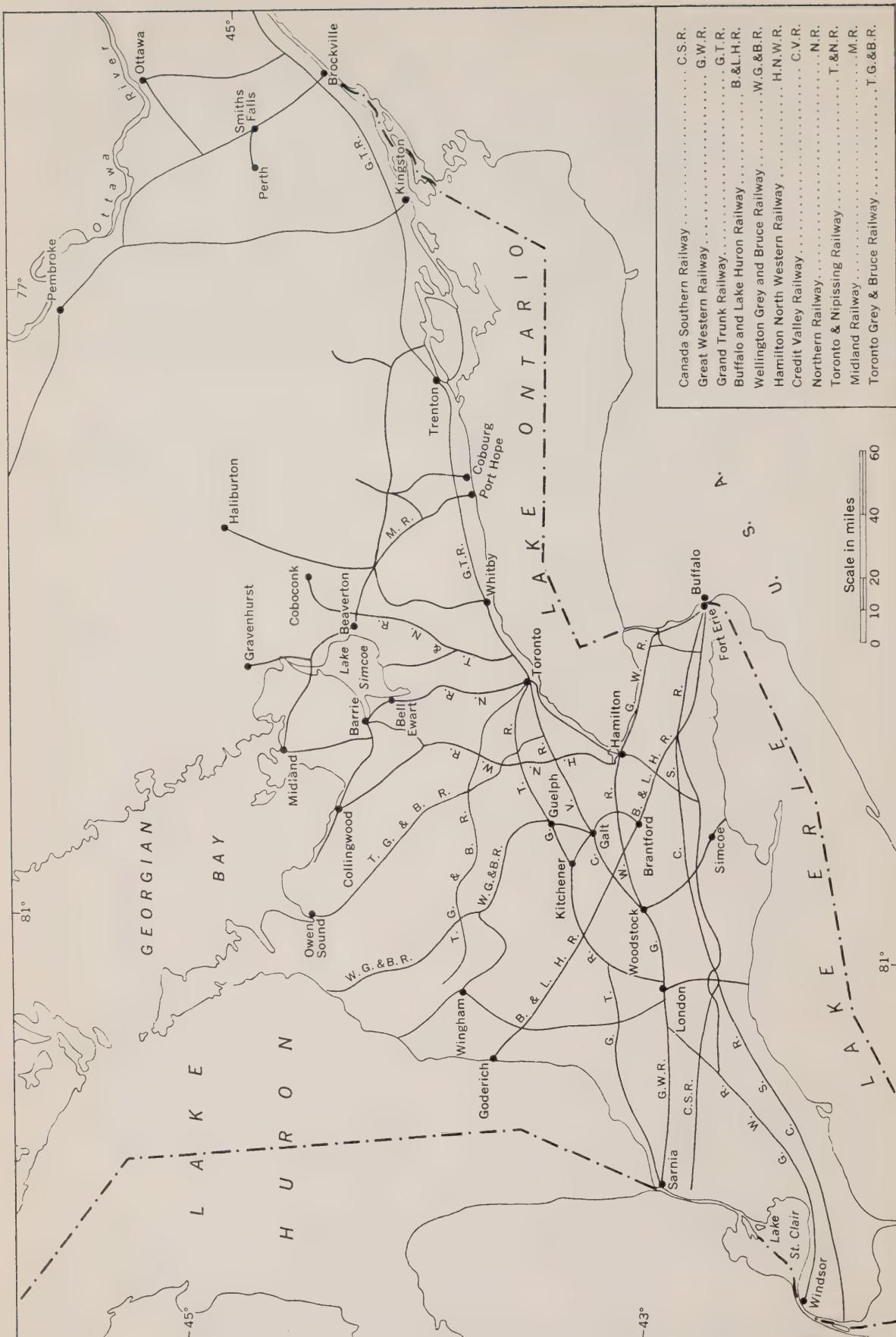


FIGURE 8. Southern Ontario, showing the main railways as they were about 1880.

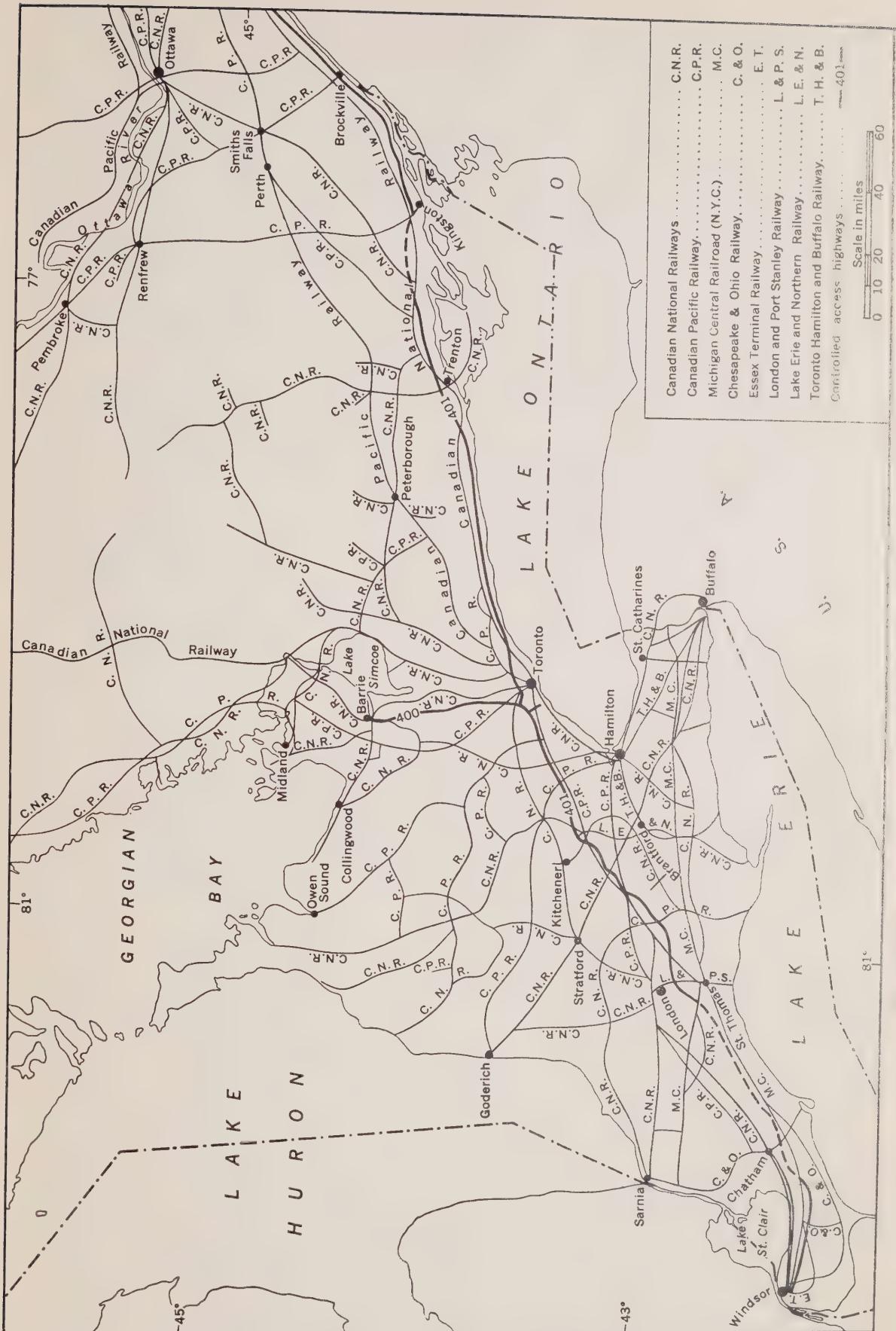


FIGURE C. Southern Ontario, showing the railway and highway network in 1963.

thought that the Great Western and the Grand Trunk would merge, but the rivalry between them had grown too strong. The keen competition between the two companies for the charter of the Hamilton and Toronto clearly indicated the strategic location of Toronto with respect to Montreal and New York. It was this location that prevented the city from being drawn entirely into the realm of either.

For the most part, financial circles in Toronto did not invest heavily in either the Great Western or the Grand Trunk. These lines were viewed as Montreal or United States ventures, in which Toronto would play only a secondary role. Toward the Toronto and Guelph Railway, which had been incorporated by a group of Toronto financiers (Gzowski and Company), the attitude was different. Toronto invested £100,000 in the Grand Trunk when that company, on merging with the Toronto and Guelph, undertook to establish its terminus at Sarnia. The Gzowski firm built the line (Longley, pp. 228, 232 and 242).

Toronto groups were much more anxious to build lines into the interior of the province to channel trade toward their own waterfront. The idea of a prosperous trade route along the Toronto Passage was still alive and continued to influence the thinking of policy makers. The idea was brought to fruition with the building of the Northern Railway in 1855.

As early as 1836, a railway called the City of Toronto and Lake Huron Railroad Company was incorporated by the Legislature of Upper Canada (Smith). It was assumed that such a line would capture trade from Wisconsin and Michigan and thus make unnecessary the long haul by water via Detroit and Niagara. Also, local interests were strongly pressing for better means of shipping wheat from Simcoe County to Toronto.

The Northern Railway—as it was later called—was very much a Toronto venture. The City of Toronto granted the railway \$25,000, a site for a station and a right of way through the city. The city, eventually, increased its loan to \$100,000 (Currie, p. 261). Of the more than 42,000 shares outstanding in July 1856, 9,500 were held by the City of Toronto, 5,571 by 89 individuals in Toronto, 10,000 by Simcoe County, 1,283 by individuals along the route and 10,820 shares by 27 individuals in New York, one of whom was Cornelius Vanderbilt. One director was appointed by the Toronto City Council.

At first the company faced difficult years but at length obtained a comparatively larger volume of freight traffic than other railways and became highly successful (Innis and Lower, p. 492). In 1876 it was able to report that no other company or investment had done so well during the depression of that period (Currie, p. 267).

The Northern also maintained two steamers on Lake Simcoe, and ran regular steamship services from Collingwood to various Lake Michigan ports. Of great importance was the fact that when the shipment of grain from Lake Michigan ports began, it followed no particular channels as had the fur trade a century earlier. Wheat was a new commodity, and its merchants were willing to explore new means of transportation and new routes. The Northern profited accordingly. Indeed, in 1861, when vessels on Lake Ontario were scarce, the services of the Northern were so much in demand that the railway was not able to despatch promptly from Toronto all the grain delivered to it by vessels plying the Upper Lakes. By 1873,

business had expanded so rapidly that the company was handicapped by a lack of rolling stock, and there were not enough storage facilities to handle all the grain carried (Currie, p. 267).

Timber and lumber formed part of the trade as well. On the return voyage the vessels left Collingwood with boards and scantlings for Chicago and other Lake Michigan ports. The Northern carried great quantities of timber and lumber to Toronto, and via its branch line to Belle Ewart tapped extensive timber resources around Lake Simcoe. Other timber supplies became accessible with the building of extension lines to the northeast of Georgian Bay.

Until the completion of the Canadian Pacific Railway, the Northern and the steamship service from Collingwood to Fort William together represented Toronto's most important connection with the Canadian West. By 1881, the company was engaged in carrying iron, copper and silver from the Lake Superior area and was involved in the movement of immigrants and the general carrying trade of Port Arthur and Duluth.

For the first time in the history of the city, a large volume of trade had begun to flow along the historic route of the Toronto Passage. The *Toronto Globe* saw in the railway the materialization of Simcoe's great expectations as the wealth of the western half of the continent came pouring down its rails to a mighty Toronto entrepôt (Careless, p. 211). The route had at last begun to play a part in the growth and prosperity of the city.

Coinciding with the building of the Northern Railway was the revival of interest in the building of a canal to link Lake Ontario and Georgian Bay. As early as 1795, after clearing the Rouge River of debris (in part caused by beaver dams) William Berczy showed Simcoe the feasibility of linking this river to the Holland by a canal. Berczy could not, however, obtain the land grants he demanded and for the time being the canal plans were abandoned. The building of railways, however, instead of making the "Georgian Bay Canal" superfluous, in reality led to an increased demand. Most pressing, perhaps, was the concern about how the Grand Trunk would affect the port of Toronto by diverting trade to Montreal (Tully). A convention held in Toronto in September 1855 led to the incorporation of a company to build a canal. Half the survey costs were to be paid by the government, and half by the counties of York, Peel and Simcoe and interested citizens of Toronto, Oswego, Orillia, Barrie and Chicago.* The plans, which reflected the thinking of those years, were never carried out and seem to have faded into the background as other railways were built. The canal had been intended to cut right across the path of the Grand Trunk; and that it was possibly to serve as a feeder for the port of New York is shown by Oswego's presence among the participating communities.

Other ports besides Toronto wanted to build feeder lines to their waterfronts, some of which would compete sharply with the Northern Railway. Buffalo attempted to attract the western trade by building the Buffalo and Lake Huron Railway, which ran from Fort Erie to Goderich. Actually the line was nothing but another tentacle of the New York octopus. The venture had little success.

*Report of Select Committee on Georgian Bay and Lake Ontario Ship Canal, p. 7.
Printed by Order of the Legislative Assembly, Quebec, 1864.

More serious was the competition of a railway built from Hamilton to Midland via Barrie and extended in 1879 to Collingwood. The aim was to capture from the Northern some of the lucrative grain trade that was passing through the Georgian Bay ports (Currie, p. 273). In addition, the railway from Hamilton was planning to extend its line northward to connect with the transcontinental line in the Lake Nipissing area.

East of Toronto, the Northern faced competition from the Midland Railway, which ran north from Port Hope. The line reached Beaverton, on Lake Simcoe, in 1871 and Midland in 1879. Trade in grain did not develop according to the expectations of the promoters, and the Northern Railway, hoping to eliminate the Midland, influenced the Ontario Government to reduce the Midland's subsidy and so drove it into bankruptcy in 1873 (Currie, p. 288). Later a government bonus revived the company and gave it strength to compete with the Northern in the lumber trade of Simcoe County and the Muskoka district. After 1882, the Midland became closely associated with the Grand Trunk. Whitby also acquired a railway leading northward, but it never constituted a serious threat to the Toronto-based lines.

Later in the nineteenth century more lines were built to focus on Toronto. The Toronto, Grey and Bruce, for example, linked the city with Owen Sound, and the Toronto and Nipissing pressed northward along the east shore of Lake Simcoe and reached Coboconk in 1872. As other lines were built with the provincial capital as their base, the railway pattern in southern Ontario changed completely. More and more feeder lines to Lake Ontario ports were cut off or partly absorbed by lines radiating from Toronto. On the eve of the First World War, 11 railways converged upon the capital, giving it undisputed hegemony as trade and service centre for a major part of the province. As a railway builder, Toronto was nevertheless not as victorious as it may so far seem to have been.

Toronto, Montreal and Western Canada

Long after the American Revolution, Montreal kept its eyes focussed on trade with the United States Midwest. The Northwest Company tried to retain its fur trade and, until the opening of the Erie Canal, Montreal was engaged in the importation of British goods for the Midwestern states. To retain the export trade for Montreal, the St. Lawrence canals were improved and the Grand Trunk was built and eventually reached Chicago. The city's interest in the Canadian West developed very slowly and hesitantly. Lower comments: "Montreal capitalism in the pre-Confederation era was not much interested in acquiring the West. It suddenly arose with the building of railways" (Lower).

In Upper Canada an entirely different mood prevailed. When, by the 1850's, land available for settlement in southern Ontario became exhausted, the Canadian West seemed to be the obvious outlet, and a strong movement developed for Upper Canadian expansion beyond Lake Superior. George Brown in the *Toronto Globe* advocated the occupation of the western territory. Toronto's "own" Northern Railway would tap the new lands. "We look upon this northern country as peculiarly our own" (Careless, p. 213). Settlement of the Canadian West

by folk from Ontario followed and reached a flood tide in the last decade of the nineteenth century and the first of the twentieth. The result was that "throughout the west, the influence of Ontario people and their descendants is potent, a blood tie to the east and one of the bonds of the modern nation" (Lower, p. 346).

As early as 1851, Allan MacDonell, a Toronto railway promoter, endeavored to obtain a charter and subsidy for his newly formed Lake Superior and Pacific Railway (Trotter, p. 249). In 1857, several wealthy Toronto businessmen, including Howland, McMurrich and McMaster, put up funds to send an expedition to the Northwest to discover the most practicable route for a rail line from the head of Lake Superior to the Red River (Careless, p. 239). The Northern Railway, the development of which has already been described, tried to promote, in association with prominent Toronto financiers, a railway from Gravenhurst to Sault Ste. Marie, where it would connect with lines that were to run south of Lake Superior and on to the Pacific coast. It failed, however, to attract United States capital (Currie, p. 273).

In 1857 the Toronto Chamber of Commerce asked the Canadian Government to eliminate the monopoly of the Hudson's Bay Company and to incorporate its territories in Canada. Some of the backers of the petition dreamed of a new fur empire, but others envisaged an eventual agricultural settlement. A year later, they inaugurated a steamship service out of Collingwood and secured a contract to carry the mail to the Red River district (Galbraith, pp. 307 and 335). These proposals and achievements illustrate the long-standing interest of Toronto in western Canada.

Confederation, achieved in 1867 and followed by the entry of Manitoba in 1870 and of British Columbia in 1871, heightened the interest of Toronto groups in winning the charter of the first transcontinental railway. It also, for the first time, aroused the interest of Montreal groups in the potential of the West, which could be best realized through the building of railways.

The Grand Trunk had a traditional interest in building a railroad to the west coast and attempted to obtain the charter for the transcontinental railway, which was to be called the Canadian Pacific. The company wanted as much as possible to make use of its existing facilities and planned to build through the United States westward from Sarnia via Chicago. It decidedly did not wish to build through the inhospitable wastelands north of Lake Superior. Since for political reasons the transcontinental had to be an all-Canadian line, this unwillingness to build through northern Ontario was the main reason why the charter was awarded to the Montreal group. The failure on the part of the Grand Trunk meant that Toronto would not have direct access to the transcontinental line, but the resistance of Toronto and Ontario had been strong enough to make the government hesitant to place the eastern terminus at Montreal. Instead, the charter stipulated that the new railway would begin at some point near Lake Nipissing. Private companies would have to build from there to the main cities in eastern Canada. The whole project came to naught, however, when the government became involved in a railway scandal, which led in 1873 to its downfall and the cancellation of the charter.

A new Canadian Pacific Railway was organized in 1880, almost entirely with the backing of Montreal financiers and the Bank of Montreal. It is true that a group consisting mainly of Ontario interests made an attractive offer to build the line, but Parliament rejected it. To satisfy Ontario, a point near Lake Nipissing (Callander, Ont.) was again chosen as eastern terminus, but for all practical purposes the line began at Montreal.

For the time being, Toronto had to be satisfied with a branch line to the Canadian West. Competition for the building of a railway link between points in southern Ontario and Callander was systematically reduced and finally eliminated by the merging of different companies. Eventually the Northern and Pacific Junction Railway was formed to give southern Ontario access to the transcontinental. It was heavily subsidized by the federal government to satisfy Toronto, Hamilton and other interests who were still smarting from Montreal's acquisition of the C.P.R. charter (Currie, p. 278).

The Board of Trade protested vigorously against Toronto's marginal position. At its request, a clause in the charter granted Toronto equal rates with Montreal and unimpeded interchange of passengers and freight at the point of junction between the C.P.R. and the N. and P.J. (Innis, 1923, p. 123). Even so, the Board of Trade continued to complain about Toronto's poor rail communications with the Canadian West. It accused the C.P.R. of favoring Montreal rather than Toronto shippers and pointed out that Montreal clients had the benefit of the long, continuous C.P.R. haul.*

Soon, stiff competition sprang up between the Grand Trunk and the Canadian Pacific, especially when the latter began to acquire lines in the freight-generating areas of the St. Lawrence lowland and southern Ontario to compensate for the lack of business in northern Ontario. Originally, the Grand Trunk had grown as an amalgamation of railways sponsored by Montreal interests. Its Canadian head office was in Montreal, although until 1895 a board in London, England, had full control over the company. Traditionally, the railway had been viewed by Toronto circles without interest and even with a certain hostility. In later years, however, it helped the city toward metropolitan dominance and tended to champion Ontario interests. In 1906, the president of the Toronto Board of Trade praised the company for having done much, although "perhaps not altogether willingly,"† for the province and the city.

Toronto's success and failure as a railway centre seemed to become closely linked with the vicissitudes of the Grand Trunk. In the 1880's the Grand Trunk absorbed the Great Western, the Northern and Northwestern, the Midland Railway and other lines, partly to eliminate their competition and partly to forestall their being taken over by the Canadian Pacific. Its endeavor to reach the Pacific coast

*Toronto Board of Trade. Annual Report, 1903. The Board of Trade in general contributed a great deal to obtaining a rate structure more favorable to Toronto. From 1897 it persistently advocated the establishment of the Railway Commission, which was finally appointed in 1904. In its annual report for 1907 the board pointed with pride and satisfaction to changes in freight rates that benefited Toronto shippers and had been made by the commission.

†Toronto Board of Trade. Banquet Address, 1906, p. 21.

was rewarded in 1903 with a charter to build the Grand Trunk Pacific from Winnipeg to Prince Rupert.* The required capital came from interests connected with the Grand Trunk, a number of Toronto financiers and other railway promoters in Ontario. The Ontario government granted the company running rights over the Temiskaming and Northern Ontario (now the Ontario Northland), a colonization line running from North Bay via Cochrane to Moosonee, on James Bay. Now, the Grand Trunk no longer needed the Canadian Pacific to reach Winnipeg. The latter, in turn, no longer wished to use the Grand Trunk facilities between Toronto and North Bay and in 1908 completed its line from Toronto to Sudbury.

The great expansion of the Canadian economy after 1896 and the settlement in the West made the building of a third transcontinental line, the Canadian Northern, financially attractive. The company established a link between its western and eastern networks by building from Fort William to Sudbury and from there to Toronto and Ottawa. The Canadian Northern was strongly supported by the Canadian Bank of Commerce and other Toronto financiers. The head offices and main shops of the company were in the Ontario capital. Shortly after its completion from coast to coast, however, the Canadian Northern experienced serious financial difficulties and was taken over by the federal government. The latter paid close to \$11 million to the Canadian Bank of Commerce, to which the railway was heavily indebted, probably to protect the bank from being forced into receivership (Currie p. 470). The Canadian Northern formed the nucleus of the Canadian National Railways, a crown corporation established in 1919. Four years later, the entire Grand Trunk system also became part of the C.N.R. The railways continued to serve Toronto, but unlike Montreal, where C.N.R. headquarters were established, the city had failed to become the centre of a railway empire.

The railways influenced Toronto in many ways. During their building era, Toronto became the centre for a far-flung region. From a small area north of Lake Ontario, its sphere of influence expanded beyond Kingston in the east and to the shores of Lake Huron in the west. The close contact with western Upper Canada in turn aroused an early interest in the Canadian West beyond Lake Superior and Toronto capital was invested in many parts of that area. Toronto banks opened numerous branches to serve new settlers, many of whom came from Upper Canada; loan and trust companies were quick to follow. The West also became an important market for manufactured goods, in particular for agricultural implements, the manufacture of which had become centred in Toronto.

The Temiskaming and Northern Ontario tapped the mineral resources of the Shield, which in turn contributed greatly to the growth of Toronto's financial strength. Favoured by its situation, Toronto succeeded in wresting most of Ontario from Montreal's domination but failed to do the same with western Canada.

The old dream of a flourishing trade along the Toronto Passage had apparently come true with the building of the Northern Railway, and a prosperous grain trade seemed to be developing, the first shipment of grain from Winnipeg to Toronto having been made in 1876 (Innis and Lower, p. 758). With the building of the

*The federal government built the line east of Winnipeg through the Clay Belt to Quebec City and Moncton and leased it to the Grand Trunk Pacific.

Canadian Pacific, however, Montreal became the great grain exporter for western Canada, and Toronto never acquired a worthwhile share in that trade. Montreal not only sold western Canada's grain but became its main importer and competed with Toronto as a supplier of manufactured goods.

The investment of money in railway construction benefited the city in general and contracting companies in particular. As early as 1853 locomotives were built in Toronto. When in the 1850's, as already noted, a Toronto company built sections of the Grand Trunk, enough money was accumulated to enable Gzowski and MacPherson to establish the Toronto Rolling Mills, and this they did in 1860. Furthermore, the railways employed many workers to maintain lines and terminal facilities and, in general, stimulated the development of metal and machine industries. The large-scale construction projects attracted numerous immigrant laborers, who later became available for jobs in Toronto in such rapidly expanding consumer-goods industries as the manufacture of boots and shoes (Pentland).

Toronto's becoming a worthy rival of Montreal destroyed the possibility of a truly primate city in Canada. Its population increased from some 30,000 in 1851 to some 86,000 in 1881. Over the same period, Montreal's population grew from 58,000 to 140,000. In 1911, Toronto numbered 376,500 inhabitants and Montreal 470,500. By that time the city had far outdistanced Ontario's other important centres: Ottawa had 87,000 inhabitants, Hamilton 82,000 and London 46,300.

CHAPTER IV

THE MORPHOLOGY OF THE NINETEENTH-CENTURY CITY

A growing city changes shape and character at different periods in its history. The pattern of streets, the size of blocks, the nature of open space and the distribution of functional zones—in short, the imprint of man upon the land—derive from the past. Each generation stamps its characteristics upon the appearance of the city, and the historical record may be read from the first narrow path to the most recent six-lane expressway.

The shape and character of early Toronto was determined entirely by government planning. Gradually, especially after 1820, the influence of the government



PLATE IV. A plan of "Torento Harbour" by Capt. Gothermann, drawn in 1788.

diminished and the city, spreading out across the lake plain, took on a form that was increasingly determined by land speculators and developers. This laissez faire policy of the nineteenth century, characterized by a lack of planning at government levels and very little interference on the part of city officials in programs of industrial and residential expansion, left twentieth-century Toronto with an unattractive cultural landscape and innumerable problems.

Some significant projects such as the draining of Ashbridges Bay were undertaken around the turn of the century, but it was not until the 1940's that a new spirit and enthusiasm for civic betterment, combined with changing concepts of the role of government in society, would bring about the establishment of boards to formulate and implement plans for the future.

Early Plans

As early as 1788, Capt. Gothermann drew up a plan for a town on the Toronto site (Plate IV). It was to be 1 mile square subdivided into 121 lots, 11 on each side. Six lots were to be set aside for squares or public buildings. Between the town and the shore of Toronto Bay a wide strip was to be held in reserve, and on the other three sides there was to be a common half a mile wide. Bordering the common were township lots, called town parks. They were smaller than regular farm lots and were to be granted to holders of lots in the town. A similar plan varying only in details was drawn up a year later by John Collins. Both plans reflect the thinking of the period regarding the layout of towns in newly opened territories.

Gothermann and Collins placed their town a short distance east of the Humber River, about opposite Gibraltar Point, which is known today as Hanlans Point. It was close to a path of the Toronto Passage running along the east bank of the river and was at the site of the old French and Indian settlements and posts.

When, in the fall of 1793, the building of the town began, the site chosen was 5 miles east of the Humber. Because of its lack of protection from the lake, Simcoe considered the historic Humber site difficult to defend. So he decided to focus his plans on Toronto Harbor, where, near the mouth of the Don, a naval arsenal would be built. From the bay, a military road would run due north to Lake Simcoe and carry the trade of the Northwest. Thus, at the outset, was formulated the plan of Yonge Street, an artery that would profoundly affect the structure of Toronto for all time. Simcoe's road replaced the old trail along the Humber, bypassing the area that Collins, Gothermann and the French traders had prized, and the town grew up to the east.

In 1793, Aitken and Jones surveyed a new base line from the border of Scarborough Township to the Humber and laid out a town plot. The land south of the base line was the so-called broken front, a small part of which east of Yonge Street was chosen as the town site. North of the line, which was called Lot Street and was later known as Queen Street, three concessions 100 chains deep were marked off. The farm lots were 20 chains wide, and at every fifth lot a side road ran through the concessions to connect the east-west roads. All road allowances were 1 chain wide and eventually became the basis for the city's main crosstown arteries—Queen, Bloor, St. Clair and Eglinton, which run east and west,

A

Harbord St.

University
of
Toronto

College

St.

Toronto
General
Hospital

Ave.

Spadina

Queen

St.

University

Bay

King St.

Front

St.

Union
Station

Toronto Terminals

B



and Yonge, Bathurst, Dufferin, Keele, etc., which run north and south. A rigid grid pattern was imposed, no attempt being made to conform to the terrain. Thus, when later extended, the north-south roads met the Iroquois shoreline head on while the east-west roads crossed ravines, creeks and marshes (Plates V A, B).

The City Liberties

After Gothermann and Collins had drawn up their plans, land was reserved for future use "on the principle that all the lands should not be given away by the Crown, and those which were found necessary for public uses, be afterwards purchased back at a most extravagant Price" (Cruikshank, p. 231). The land thus set aside was called the City Liberties. In York, the reserves were made extensive to meet the expected military requirements. The entire broken front, including the peninsula, was retained by the government.

Simcoe's plans for substantial fortifications on Gibraltar Point were never implemented. Instead, a garrison, consisting of barracks and block houses, which eventually became Fort York, was located on the shore of the bay just west of the mouth of Garrison (or Government) Creek. The Garrison Reserve comprised the land within a thousand yards of the fort. On the east its boundary extended in an arc from the foot of Peter Street to near the intersection of Bathurst and Queen streets and thence was formed by Queen and Dufferin. It enclosed 768 acres.

Originally the land extending north to Bloor Street between Parliament Street and the Don River was probably set aside as a naval reserve. Fine stands of timber made it attractive, and shipyards and supply depots were planned for its south end. Later it became an ordinary government reserve called "The Park" or "The Common." Some maps describe it as a "Reserve for Government Buildings" or "Government House Reserve." The first parliament buildings were located near the southwestern corner of The Park, and at one time plans were made to build a residence for the Lieutenant Governor close by. In the north part of The Park, Governor Simcoe built a summer home called Castle Frank, which was later granted to his son. In any event, the reserve resisted subdivision for a long time and, in combination with Taddle Creek, blocked the town's eastward expansion.

Of great importance was the fact that to the west of Parliament Street, between Queen and Bloor, the land was laid out in 32 park lots of 100 acres each. In reality there were 34, but numbers 1 and 2 were part of the aforementioned park. Lots 29 to 34 were west of Dufferin Street. The park lots, the equivalent of the town parks found on Gothermann's map, were to be granted to certain persons who received a lot in the Town of York. They were used specifically to induce government officials to leave Newark, the first capital, and pioneer once more in York (p. 35).

The Old Town

The town was laid out on slightly elevated ground about halfway between the Don River and Yonge Street. The site lay within the broken front just west of The Park. According to the plan, the first town comprised 10 blocks of 4 acres each circumscribed by the present-day George, Duchess, Ontario and

Front streets. The lots in the front range of blocks, which faced the harbor, were larger than those in the blocks farther back. Their occupants were expected to build substantial two-storey houses with a frontage of at least 46 feet. The houses had to be set back from the street and be uniform in architectural style (Cruikshank, v. II, p. 89, and v. IV, p. 284). Claim to a lot would be forfeited if a building had not been erected within three years.

From the northwestern corner of the town two roadways led diagonally to Queen and Yonge streets. Along the waterfront a path, preserved today in the winding trend of Front Street, gave access to the garrison. From the eastern limits King Street continued in a northeasterly direction to a bridge across the Don River. North of the town, Taddle Creek and a marsh blocked the eastward extension of Queen Street, and the curve of present-day Britain Street is a relic of the former detour.

Various structures of brick, stone and wood were built in the Old Town. There was no scarcity of materials to feed lime and brick kilns and sawmills, which had been set up just beyond the outskirts. Bouchette mentions the fine houses in which the early residents took pride (Bouchette, 1815, p. 606). Such was the old Town of York—a planned, compact settlement with an abundance of land around it available for harmonious expansion. As yet, however, the town had no church or school and very few shops.

The First Expansion: the New Town

Soon York had to be enlarged. At first it was thought that expansion would take place to the east, where the Parliament Buildings had been erected. In anticipation, the land between York and The Park was subdivided and added to the town just before the end of the eighteenth century. The main expansion, however, was to the west, on the reserved land lying in the direction of the garrison. Since all the land was government-owned, the entire expansion was carefully planned as a unit and properly integrated with the existing town.

The New Town was laid out in 1797 south of Queen Street between Yonge and Peter streets, the foot of the latter touching the perimeter of the Garrison Reserve. Between the Old and the New Town, five blocks of 6 acres each were set aside for a market, church, school, hospital and jail. Thus the public buildings would be located conveniently between the two sections of York. Their erection proceeded slowly, however, and as late as 1820 the area was still largely open. On the other hand, some of these public lands were subdivided to help finance the construction of government buildings. A map of 1820 shows lots 150 feet deep along the east side of the college square, while the block to the west was labelled “hospital sales.” The church square was reduced by the granting of 2 acres to private individuals. This piecemeal system of land disposal accounts for the present dense and irregular street pattern between Yonge and Jarvis, south of Queen Street.

In 1803, the block bounded by King, Jarvis, Front and Church streets became the site of a weekly cattle market, which was to influence the land-use pattern in this part of the city. From 1844 to 1899 the city hall stood on the southeast corner and later the Armories were built just south of this site. King Street became the main shopping area.

The New Town was laid out on a much more ambitious scale than the Old. The plan made provision for some large squares, and the New Town not only covered a larger area but had blocks of greater dimensions. Between Toronto* and York streets, for example, two rows of four blocks each were laid out, one block being as large as six small blocks in the Old Town. The easternmost blocks were shortened when, around 1820, Yonge Street was extended to the bay. The 850-foot-long blocks between Bay and York streets that have been inherited from this plan were to constitute a serious problem in any reorganization of the downtown part of the city.

A third row of long blocks was laid out between Simcoe and John streets, paralleled on each side by a row of shorter blocks. The eastern row of smaller blocks was to be traversed later by University Avenue in a slightly diagonal direction. In this part of the New Town two long blocks were set aside as squares: Simcoe Place, between Wellington and Front streets; and Russell Square, between Adelaide and King streets. North of Richmond Street the blocks were only half as large as those to the south.

There was a variation not only in the size of blocks but also in that of lots. South of Richmond Street the blocks east of York Street consisted of eight lots each. In the blocks around the squares the lots were very much smaller, especially those that faced inward.

In contrast to the compactness of the Old Town, was the open appearance retained by the New during the first decades of the nineteenth century. Several substantial residences were built on spacious grounds, while other lots were cultivated. Many lots in the New Town were taken up by members of prominent York families, most of whom had a park lot and certainly other farm lots in the concessions to the north.

In 1813 a large house southwest of Simcoe and King streets was purchased as a residence for the Lieutenant Governor, and until 1912 it remained the site of Government House. The Parliament Building stood on Simcoe Square from 1826 to 1903. Just to the east stood the residence of the Anglican Bishop. Russell Square was the site of Upper Canada College from 1829 to 1891.

An attractive strip of land kept open along the shore of the bay endowed the buildings and residences along the front of the town with a beautiful setting. The Crown had granted J. B. Robinson and other leading Toronto citizens about 38 acres of land between the top of the bank and the front of the town to be set aside as a public walk or mall. By this patent, dated July 14, 1818, the trustees were charged to hold the land for the benefit of the inhabitants of the Town of York. If used for other purposes, the land would revert to the Crown. Until the middle of the nineteenth century, maps describe this land as "Reserved for the Public as a Promenade" (1852) or "Reserved for a Public Pleasure Ground" (1834). Other open space north of Queen Street, although largely in private hands, was quite accessible. As early York was elongated, its inhabitants could easily reach open space, either at the waterfront to the south or on the farm and forest land to the north. It was not necessary to appropriate parkland

*At that time Yonge Street did not extend south of Queen Street. Its continuation to the waterfront was Toronto Street, just to the west of present-day Victoria Street.

within the municipal confines and this probably explains why the "alameida" (alameda) shown on an early plan for York did not become part of the town (Cruikshank, v. II, p. 313). It also undoubtedly means that the attractive setting of the early town accounts for the appalling lack of open space in the present Central Business District of Toronto, which encompasses much of the area of the Old and the New Town of York.

With the building of the New Town, the first phase in the morphological expansion of the city came to a close. It was a period characterized by a great deal of government planning. The subdivision of the government reserves, the advance of settlement north of Queen Street, the changes in the waterfront and the building of the railways, which followed in the nineteenth century, took place, however, with an almost complete absence of government control. It marks the second phase in Toronto's territorial expansion.

The Subdivision of The Park and the Garrison Reserve

What remained of the government reserves was never the object of overall planning or integrated development. The Park, having lost the Parliament Building and the Lieutenant Governor's home to the New Town and having failed to support a shipyard, was largely undeveloped. In 1810, a plan was made for its subdivision but was unfortunately not implemented. Philpotts' map of 1818 (Plate VI), showing only one house east of Taddle Creek, suggests lack of interest in the area. Even in the early 1830's, Parliament Street was the most easterly in the Town of York and there were no houses on it.

When the subdivision of The Park finally began, it proceeded in piecemeal fashion, first south of Queen Street and later, in the 40's and 50's, farther north. Many small houses were crowded on the blocks, especially in the area bounded by Parliament, Gerrard, the Don River and Queen, later known as Cabbage Town (McAree). After the Second World War, the area became the scene of public-housing projects and large-scale redevelopment. The latter included reorganization of the street pattern, which originally had a mainly east-west orientation, unlike that west of Parliament Street, which is predominantly north-south. In the northern half of The Park, at one time part of the Castle Frank estate, two cemeteries and a park were laid out. For many years, before Bloor Street was extended across the Don Valley, the main east-west connection followed Winchester Street and the bridge at its foot, which was orientated toward the northeast because of a former meander in the river. The block bounded by Sackville, Spruce, Sumack and Gerrard streets became the site of a general hospital, to which two medical schools just to the west were related. This site was later abandoned as medical facilities became increasingly concentrated south of Queen's Park in connection with the Medical Faculty of the University of Toronto.

The rest of the government land, the Garrison Reserve to the west of the New Town, was sold by the government at high prices in the middle 30's. Several plans for subdivision were made, some of them incorporating a circular road along the thousand-yard-radius arc, while others had unusual geometrical patterns. As in the case of The Park, however, none of the plans were implemented, and the final form of the subdivision, unlike the New Town, did not reflect a unified concept.

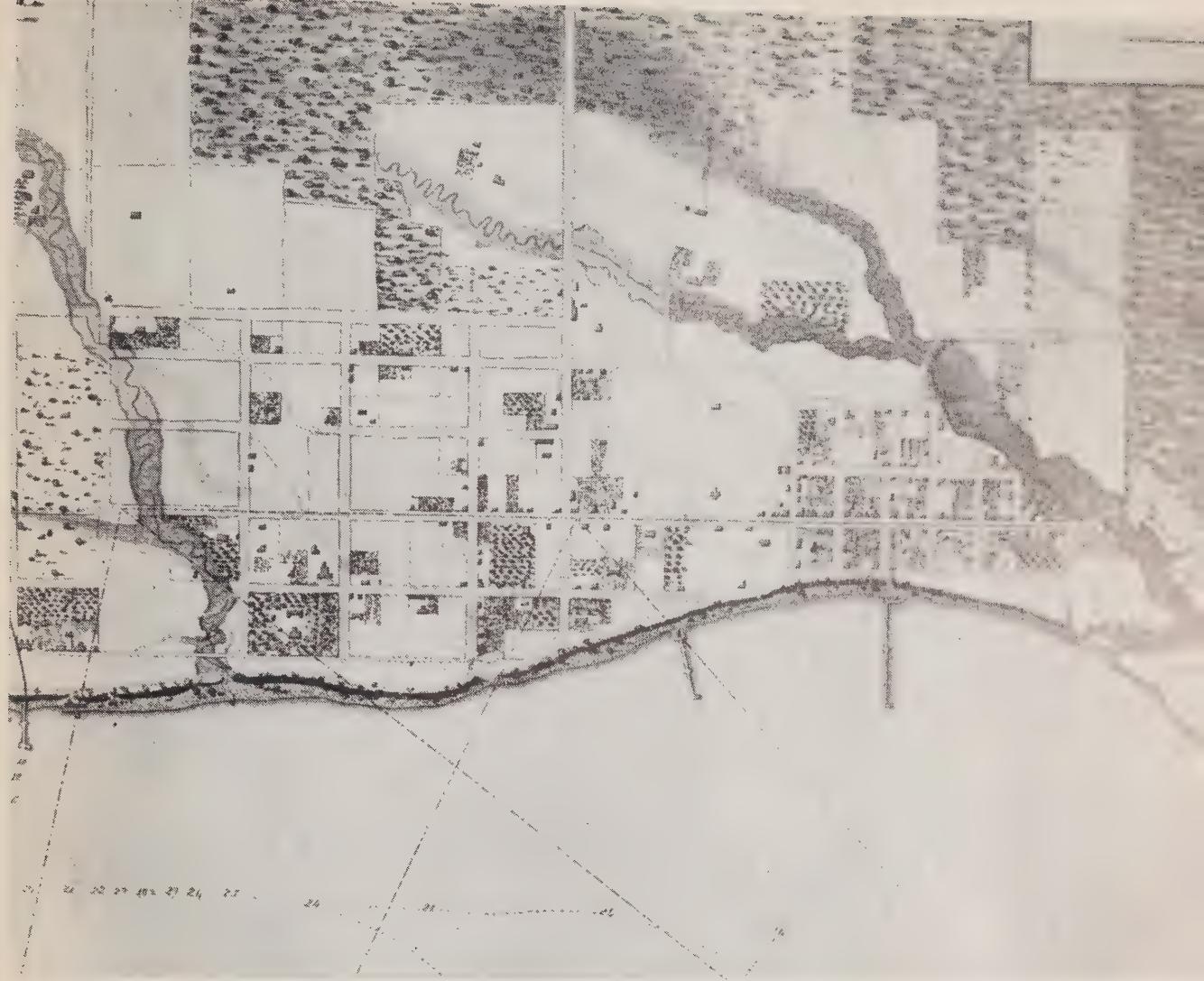


PLATE VI. York, 1818, by Lt. G. Philpotts. Scale: 1 inch = about 1 mile.

This part of the city nevertheless became more varied in appearance than the southern part, largely because of military influences. Characteristic of the district east of Niagara Street and following the bank of the extinct Garrison Creek are a number of squares. Of these, McDonnell and Victoria squares comprise former military burial grounds deeded for the building of churches. East of Victoria Square, Wellington Street broadens to an unusual width and leads to Clarence Square, which was set aside for residents around lower Spadina Avenue. St. Andrews Market Square was laid out between Adelaide, Portland, Richmond and Brant streets. South of Front Street and toward the lakeshore, land was once again reserved for a park and promenade.

West of Niagara Street, much of the Reserve was used for such non-residential facilities as new barracks, a cattle market, a hospital, a reformatory, exhibition grounds and parks. Most significant for later development were the rights of way and terminal facilities for which the city, with its lively interest in railway-building, granted the railway companies the use of city-owned land. Thus the western portion of the Reserve was gradually converted to a variety of public and semi-public uses.

The Park Lots

The direction of expansion and the character of growth on the park lots north of Queen Street were profoundly influenced by the attitude of private landowners. Speculation in land, significant in the growth of Toronto even to the present and strikingly characteristic of the North American city, can be traced back to the sale and resale of park lots and to subsequent similar dealings in farm lots. All the prominent families of early York received park and farm lots, and their names and the names of their estates are still found in the nomenclature of this part of the city (Reid, pp. 16-19).

From the outset, to prevent land monopolization and speculation, the government tried to enforce the statute of 1789, which declared the transfer of unimproved town and park lots to be illegal. Settlement north of Queen Street nevertheless proceeded slowly, land changing hands more frequently than the government had probably expected. The park-lot owners also held land in the concessions north of Bloor Street, much of it apparently for speculative purposes. Before 1810, indeed, there was very little rural settlement south of Eglinton. Philpotts' map of 1818 shows only a scattering of farms north of Queen Street, most of the land being still under forest. In the early 30's Yonge Street extended north as far as Trinity Square, from where it continued as Yonge Street Road, which was in very poor condition. By the early 40's houses stood along the north side of Queen Street from Garrison Creek to just east of Yonge Street, and there was a sprinkling of houses northward along Yonge to Bloor.

The park-lot owners established farms, summer residences or full-fledged country estates. Some of the farm houses were very substantial like that of Peter Russell, just east of Spadina Avenue. Some owners experimented with the growing of fruits, vegetables and flowers and the breeding of horses and cattle. They became Toronto's first gentlemen farmers, a class that has always been found just beyond the fringe of the city.

By 1840, the population of Toronto had so increased that residential development on a larger scale north of Queen Street became necessary. The southern halves of the two park lots west of Yonge Street had fallen into the hands of one owner, and there, south of Louise Street and east of Chestnut, the suburb of Macaulay Town was built. The maps of those years show a large number of subdivisions planned on other park lots, some of them already extending as far north as Bloor Street. Still other park lots, however, remained uncleared, like lots 5 and 6 between Sherbourne Street and the line of Mutual Street. The land close to Yonge was developed first, and the tendency to do this became even more marked in the second half of the nineteenth century and gave the built-up area its traditional shape of an inverted "T."

The plan for the subdivision of a park lot was, for the most part, a product of the owner's imagination. Nearly all developments, however, had one aspect in common—the orientation of the streets. By and large, streets were projected in a north-south direction along the length of the 100-acre lots, while east-west connections remained poorly integrated. Later, Dundas and College streets were formed by interconnecting sections of east-west streets in different subdivisions and

thus provided additional cross-town arteries between Queen and Bloor Bay Street, which integrated subdivisions that had a Yonge Street orientation, is such a link in a north-south direction.

Only when large complexes of land consisting of more than one park lot had been assembled could the subdivisions conceived by private owners rise above the general mediocrity. Spadina Avenue was given its unusual width by the Bradwells, who also allowed greater width for Queen Street in front of their holding, hoping that their example would be followed by others. North of College Street Spadina Avenue circled a carefully planned garden-filled crescent, which after 1874 was unfortunately occupied by a college building. Another crescent-shaped opening was planned for Sussex Avenue just south of Bloor but was never developed. The continuation of Spadina Avenue farther north reveals the lack of imagination in nineteenth-century Toronto. The avenue does not cross Bloor Street in a straight line; it ends abruptly at the base of the Iroquois shoreline and so makes the building of a grand boulevard to the north impossible.

The city is indebted to the Robinsons, who, by laying out Parklane on their subdivision along College Avenue, made it possible later to join these two thoroughfares and thus create the 180-foot-wide University Avenue. Brunswick Avenue, which runs north of College a few blocks west of Spadina, owes its 80-foot width to the owner of another park lot. He also created Bellevue Square, which, however, has shrunk a little from its original size.

Some owners of park lots placed their imprint on this part of the city by granting land for public buildings, by disposing of their residences for specific purposes or by simply holding the land for speculation. Chief Justice Robinson donated the southern 6 acres of park lot 11 to the Law Society of Upper Canada for the building of Osgoode Hall. The residence on park lot 13, the Grange, became the nucleus of the Toronto Art Gallery. With it went a remnant of St George Square, once planned by the owners of the park lot. Allan Gardens and Moss Park, which at one time extended from Queen Street to Dundas Crescent, derived from the estate and pleasure grounds on park lot 5. Alexandra Park at Dundas and Bathurst, is still another example.

Some of the park-lot estates became schools, hospitals or institutions of other types. Wykeham Lodge, southwest of Yonge and College streets, whose site is now occupied by a large department store, became an early home of Bishop Strachan School; Elmsley Villa, at Grosvenor and Bay streets, became a theological college, and Homewood constituted the first quarters used by Wellesley Hospital, Wellesley Street still curving southward as it did around the former estate.

The owner of the northern half of the first two park lots west of Yonge Street granted land for the building of St. Basil's Church and College, two convents and other church facilities. Immediately to the west, the northern half of three consecutive park lots was set aside as College Park, on which the University of Toronto was to rise. The eastern part was given in a long-term lease for the erection of parliament buildings and became Queens Park. At present, nearly all the land bounded by Spadina Avenue and Bloor, Bay and College streets, is occupied for public and semi-public uses.

Other park-lot residences persisted well into the nineteenth century after the land around them had been subdivided and built upon. Some were almost completely hemmed in, having only narrow links to through streets. Such was the fate of Dundonald House (Kearsney House), on the east side of Yonge Street between Gloucester and Wellesley, and of the Allan residence, in Moss Park. When such a residence was finally abandoned and demolished, a large lot became available in a densely built-up area. Such property, as well as that which had been deliberately kept open by the owner, became highly prized as a site for a large new building or group of buildings. Several lots were acquired for churches, schools and hospitals. Development of this kind accounts for an almost continuous row of churches and institutions generally just east of Yonge Street between Queen and Gerrard. It was eventually to form a sharp demarcation line for the Central Business District (p. 149). The Macaulay home-stead, on the west side of Yonge Street, became, through endowment, the site for Trinity Church and Trinity Square.

The growth of commerce in Toronto brought about the rise of a new wealthy class, which demanded high-class residential property close to the city. Park lots 5 and 6 in the Jarvis and Sherbourne area remained unsubdivided for a long time; even as late as 1860, Jarvis Street had several large unoccupied lots between Carlton and Bloor. They were gradually occupied by large residences, and in the 1870's Jarvis was undoubtedly the most fashionable street in the city.

Expansion of Farm Lots

Land north of Bloor Street had been partitioned into farms, the subdivision of which began in the second half of the nineteenth century. Generally, each farm was subdivided as an individual unit, and only rarely were two or more united and developed as a large project. The nature of the housing and the pattern of the streets derive from this piecemeal expansion. The principle of *laissez faire*, which characterized the development of the park lots, was applied with even more vigor in later subdivisions, being well exemplified in what Dickinson calls natural or unplanned growth (Dickinson, p. 268). The shape and structure of each subdivision was generally determined by the individual land owner.

In southern Ontario the typical farm was laid out in the shape of a rectangle, the orientation of which depended on the direction of the base line of the survey. When such a farm gave way to urban encroachment, the street pattern imposed upon it was in most cases prescribed by its rectangular shape. The predominant direction of the streets parallels the longitudinal axes of the original farms. In transverse direction run a few short streets, many of which do not link directly with their counterparts in subdivisions on adjacent farms. Thus contrasts in street patterns reflect the differences in the original survey system. West of Yonge Street for example, between Bloor and Eglinton and as far west as Keele Street, the dominant orientation of the streets is north and south, or similar to the pattern on the park lots south of Bloor. West of Yonge north of Eglinton and east of Yonge north of Rosedale, the grain of the street pattern is generally east and west.

The street pattern described is typical of the farm-by-farm expansion that has characterized Toronto's growth from the nineteenth century to the present. It is the pattern that is found throughout the built-up area, including most postwar suburban subdivisions. On air photos of Scarborough or North York, for example, built up largely during the postwar period, the limits of the original farms may still be easily identified (Plate XIX).

Perhaps the most unfortunate legacy of the pattern is that of jogs in many roads, especially in the short transverse streets, which commonly seem to end at a main artery, only to continue after a short jog to left or right. Most of these discontinuities result from the piecemeal subdivision of farms. Since the location, length and direction of streets were entirely under the control of each subdivider, it is a wonder that any street continued in a straight line from one subdivision to another. Other jogs, especially those of main arteries, arose because of inaccuracies in the survey. The elimination of these jogs to facilitate the flow of modern traffic has often been costly (Plate XXIII).

The most striking example of an anomaly in the survey system is Yonge Street. Between Queen and Eglinton it intersects the concession roads at right angles. As it ran south from Holland Landing, however, Yonge Street reached Eglinton at a slightly oblique angle east of its present intersection with that avenue. An adjustment was therefore made in the third concession just north of St. Clair Avenue by bending Yonge slightly to avoid the creation of a large jog. Although, north of Eglinton, Yonge Street became the base line of the survey, the side roads continued to parallel Eglinton and were thus skewed with respect to Yonge. This skewness reflects the shape of the farm lots, the shape of the lots in later subdivisions and even the floor plans of some buildings.

A few land developers concerned with the promotion of high-class residential districts departed radically from customary grid patterns, assembled two or more farms and gave such districts as Rosedale and Lawrence Park winding and crescent-shaped avenues.

For the most part, land developers north of Bloor Street destroyed the traces of the original rural landscape more effectively than their earlier counterparts on the park lots. Here and there, streets lined with stately pines or elms, at one time the approaches to impressive mansions, may now be found as reminders of the past. Later, in the twentieth century, a few estate grounds became part of the public park system. The story of Grange Park or Allan Gardens is repeated in James' Gardens and Edward Gardens. The Glendon Hall estate became the home of recently created York University.

An interesting phenomenon in the expansion of the city was the absorption of outlying villages. The rural settlement around Toronto supported a number of small service centres located at or near intersections of concession and side roads. Typical was the series along Yonge Street: Yorkville, at the intersection of Bloor; Deer Park, at St. Clair; Davisville, slightly farther north; and Eglinton, just north of the Eglinton intersection. The railway stations later spawned others, which soon became dormitory settlements.

Yorkville is an interesting example of a pattern that was repeated many times. The owners of the land originally established the village as a speculative



PLATE VII. A 1949 view of the junction of Weston Road and Wilson Avenue, the latter seen running eastward. The land is on the verge of being subdivided. The ruts in the upper left indicate the route of a road that is to intersect Weston Road north of Wilson. Compare with Plate VIII.



PLATE VIII. The corner of Weston Road and Wilson Avenue looking east, with the Humber River in the foreground, in 1962. Highway 401 has cut a swath through the area to the south of Wilson Avenue. Factories have sprung up along Wilson and also along Highway 400, which joins 401 in the upper part of the photo. The farm on the left edge of Plate VII has become the site of a neighborhood shopping centre and just to the south the terminal point for suburban buses may be seen. Note the four gasoline stations at the corner of Wilson Avenue and Weston Road.

suburban development just outside the city boundaries. In 1861 the first street railway was built to take the Yorkville commuter to the core of the city. In the course of time, however, the independence of the village became increasingly precarious, mainly because of the problem of inadequate public services. To the annoyance of the city, Yorkville was guilty of polluting the water of a southward-flowing creek.* The end came when new city waterworks were established on the hill to the north and the mains passed through the village but did not supply it. This was the immediate reason for the annexation of the village, which took place in 1883.

By the time suburban villages were merged with the city, they had generally acquired well-developed shopping facilities, each with its own small trading area. The present built-up area contains a number of flourishing outlying or neighborhood shopping centres, the nuclei of which are former villages.

The Railway and the Changing Waterfront

By the middle of the nineteenth century, North American cities were being drastically reshaped by the building of railways. In Toronto, what were unquestionably the most significant and in many ways the most unfortunate changes took place along the waterfront, where different railways competed for terminal space and access to docks. The attractive shore setting that the city had enjoyed in its early decades was rudely altered, and the possibility of a waterfront like that of a Zürich or an Oslo was lost forever. The city seemed, in fact, to turn its back to the lake. On the other hand, could this course of events have been avoided? It is true that the onslaught on the waterfront setting was powerful, the physiography of the site nurturing a close relation between the encroaching railways and the expanding port. At the same time, through an appalling lack of governmental planning, the city was denied the orderly development that would have given its residents space for commerce and recreation alike. The building of railway facilities seemed especially a grand free-for-all only feebly opposed by the city.

The first wharves built in Toronto were in shallow water in two locations—one near the entrance to Garrison Creek (Queen's Wharf) to serve the fort and the other just east of Yonge Street, opposite the Old Town. By the early 30's, five wharves were in service, the one at the foot of Church Street being able to accommodate steam vessels with a draught of 10 feet. By the early 70's the number had increased to 25. The tendency of the shallow water between the wharves to become laden with mud, weeds and large quantities of sewage made necessary an annual clearing and dredging of the slips. Gradually through the nineteenth century the introduction of larger ships on Lake Ontario necessitated the building of new wharves and the extension of old ones farther into the bay. Old piers were widened, and on the shore side several were to merge to make a new strip of land at the foot of the former shoreline. The history of development of the present harbor is, in fact, one of the extension of facilities farther into the bay and the reclamation of land in front of the eighteenth century shoreline. Succeeding "headlines" are marked by Esplanade Street,

*The Toronto Globe, November 18, 1873.

Fleet Street and Queen's Quay. The most recent advance, completed in the 1960's, has taken place in the northeastern corner of the bay where the waterfront is almost half a mile south of the original shoreline.

From the time of the founding of York, the Crown granted water lots to private interests to be used for commercial and industrial purposes. By the late 30's, the City Council had become concerned about the increasing private occupation of the waterfront and consequently applied for the patents of the remaining water lots and abutting land as far as the top of the former bank. Early in 1840 the patents were granted on the condition that within three years an esplanade 100 feet wide should be constructed on the reclaimed land. From the earliest days of York, the narrow strip of beach at the foot of the bank had been a favorite carriage drive. A new esplanade would insure the maintenance of such a drive for all time, but the city had difficulty in deciding upon a location, one of the major problems being the refusal of many of the private lessees and owners of water lots to co-operate. Progress on the project was therefore delayed.

In March 1853, the Crown made a new grant of 55 acres of water lots to the city on the condition that construction of the esplanade should be started within one year. The Crown retained the right to grant land along the waterfront between Simcoe and John streets to railway companies. In the meantime, part of the land granted to the city between Spadina Avenue and Bathurst Street had been occupied without permission by the Ontario, Simcoe and Huron Railroad (later the Northern Railway). The question of the esplanade had to be dealt with again, and in the Esplanade Act, passed in June 1853, the city was given authority to undertake this construction as well as to tax the lessees and owners of water lots for their share of the costs. The contract was awarded early in 1854 and construction began. Two years later the City Council succumbed to the growing pressure of railway interests and destroyed the whole concept of the esplanade as a carriage drive along the lakeshore by granting the *southern* 40 feet of its 100 feet to the Grand Trunk Railway as a right of way for its tracks. It was argued at the time that the city had no authority to make such a grant, and even City Council itself had doubts about the legality of the transaction. Indeed, it was questionable whether the esplanade could be used as a highway. The optimism of the period regarding the effect of railways on the economic development of the community helps to explain the population's refusal to heed the warnings of a few far-sighted individuals to protect the lakeshore. Efforts to rescue some of the waterfront for public use grew weaker, and the priority given the development of railway and port facilities grew stronger.

The plans for the esplanade raised doubts concerning the continued value of the agreement of 1818 between the Crown and Robinson and associates (p. 61). Moreover, because of the reclamation of land and the creation of new port facilities and the intended building of rail facilities, the mall no longer adjoined the waterfront and indeed became less and less accessible to it. In April 1857, by special legislation, the trustees received the power to transfer the land to the city "upon the same trusts and conditions as are expressed in the said letters Patent

herein before mentioned," i.e. upon those of 1818.* Thus the city became the owner of all the land between Front Street and the old shoreline as well as of a number of waterfront lots. Toward the end of the century, one more attempt was made to retain public open space along the waterfront. The Privy Council in London issued an order setting aside for park purposes water lots—largely still to be filled in—between Parliament and John streets. The execution of the order was found, however, to be impracticable.† Instead, during the following years, Lake Street, later named Fleet Street, was begun as a waterfront route free from railway crossings.

The occupation of the entire front of the city by railways in the second half of the nineteenth century was indeed unfortunate. Under a plan of co-ordinated railway development, trains could easily have been brought from the east via the north of the city to terminal facilities in the west. From there, access could have been gained to the waterfront, railway facilities in that area being kept west of Simcoe Street and the rest of the area harmoniously integrated with the city, especially with the Central Business District.

The success of the Grand Trunk Railway in appropriating part of the esplanade also encouraged other companies to seek rights of way along the front of the city. A bitter struggle ensued and culminated in the agreement of 1864 between the city and three railways—the Grand Trunk, the Great Western and the Northern. Special legislation made the esplanade a public highway, more than half of which (52.6 feet) was placed at the disposal of these three lines. In addition the railways continued to encroach upon other lands in front of the city, and for almost two decades there were five stations on and near the esplanade.

Of the major railway companies, only the Canadian Pacific had so far not been able to get access to the waterfront. The Grand Trunk blocked its attempts to enter along the esplanade, causing it a great deal of inconvenience. In the late 1880's, the city straightened the lower course of the Don River, thus making it possible for the Canadian Pacific Railway to reach the waterfront from the east. In 1892, the Grand Trunk, the C.P.R. and the city reached the Tripartite Agreement, which defined the rights and privileges of each with respect to the terminal facilities on the esplanade and the waterfront. The C.P.R. was granted a right of way along the south side of the Grand Trunk tracks.

Toward the end of the century, the land along the waterfront was being used for the following: from Bathurst to Simcoe Street, a concentration of railway facilities and grain elevators and also the City Water Works, with its own wharf; to the east, between Simcoe and Scott streets, passenger terminals, ferry docks, boat houses and clubs; and east of Scott Street, general business dealing in such commodities as coal, stone, gravel and ice.

The railways also encroached upon the land north of the 1790 shoreline. Simcoe Square, which had once been the site of the Parliament Building, and the former site of Government House became railway yards. In turn, the

*In Chancery Between the Attorney General of the Province of Ontario at and by the Relation of the Corporation of the City of Toronto, Plaintiffs, and the Grand Trunk Railway Company of Canada, Defendants [sic]. Brief, Toronto, 1883.

†City Engineer. Report, 1890.

railways attracted wholesaling, warehousing and manufacturing establishments, thus giving rise to an entirely new type of land use in what was the old centre of administration. One after another, old landmarks succumbed to the demands of the railway age. The palace of the Anglican bishop first became a school and then a hotel.

In the early 1880's a belt line was completed to route freight around the city. It did not fulfill expectations, and the concentration of railway facilities in the waterfront area became even greater. Their decentralization would have to wait until well into the twentieth century.

Problems of Sewage Disposal and Water Supply

The general indifference of the nineteenth century City Councils to planning and the expansion of community services led to a number of problems, some of which have not yet been solved. Municipal government was based on the principle that "the best governed are those who are governed least." The City Fathers viewed all disbursements of public money as expenditures, as lost capital, and never as investments that might, in due time, yield returns, if only by preventing costly remedial measures. It is no exaggeration to say that conditions had to become unbearable before municipal spending would be authorized.

Among the serious problems the city faced in the latter half of the century, those of sewage disposal and water supply best illustrate the indifference of the population and the lack of foresight on the part of local government. What was, in effect, a most accessible and excellent source of fresh water—the lake—was being increasingly polluted by sewer wastes. So great, in fact, was the pollution of the drinking water that more than once epidemics threatened to reach dangerous proportions. At different times, engineers discussed the possibility of drawing water from the upper reaches of the Don, Humber and Rouge rivers, and even from as far north as Lake Simcoe.

As early as 1834, Sir Richard Bonnycastle reported to the city: "I also beg to remark that in making the sewers for the city, it would be very advisable to construct one main sewer through the whole length down to the marsh, instead of lateral ones into the Bay." His advice was to no avail, as it was thought that such a sewer would not have sufficient gradient.* In effect, sewers were built along the main north-south streets to carry waste into the bay; and by the middle of the century sewage had accumulated to a depth of 2 feet for at least 300 feet out from shore. In one of the 1854 reports just referred to, Kivas Tully proposed connecting the sewers to a covered channel running under the centre of the intended esplanade from the Don River to Queen's Wharf. Some of the Don water would be diverted through the tunnel and thus continuously carry away the sewer effluents. Tully's plan was ignored and the pollution of the bay continued unabated. The dredging of some of the slips between the wharves had to be done three times each season.† When conditions became unbearable, the sewers were simply extended farther into the bay.

*Toronto Harbor Commissioners. Reports on the Improvement and Preservation of Toronto Harbour, 1854.

†City Engineer. Report, 1890.

By 1890, the pollution of the eastern part of the harbor, Ashbridges Bay, had attained such proportions that reclamation became mandatory. The manure of large numbers of cattle in the byres of a nearby distillery was also drained into the bay and was one of the chief causes of its rapid deterioration.* It is of interest to note that the original plans for reclamation included a smoothly curving channel 300 feet wide extending along the north shore of the bay from a connection with Lake Ontario west of Coatsworth Cut, past the mouth of the Don River and the wharves to provide a current capable of removing the polluted water in a westerly direction. The plan was a modification of Tully's proposal of 1854. Present-day Keating Channel, which was part of the proposed canal, was later integrated with improvements in the lower course of the Don River (p. 71). Keating Channel, in fact, became the river's new outlet. The gaining of port facilities and industrial land was secondary in the Ashbridges reclamation project.

In the meantime, the question of obtaining a safe, reliable supply of drinking water was becoming increasingly urgent. The first waterworks, southwest of the foot of John Street, was supplied by means of pipes extending into Toronto Bay. As pollution increased, the pipes were periodically lengthened, and by the late 1880's they had been extended 2,357 feet from the centre of Hiawatha Island to a point of some 30 feet below the surface of Lake Ontario. Most important, however, was the boring of a tunnel 8 feet in diameter in the shale beneath the bottom of the bay for a distance of more than 5,000 feet from the main pumping station to prevent once and for all the further infiltration of polluted water from the harbor. At last, at great cost, the city seemed to have secured a satisfactory water supply.

Thus the second phase in the morphological development of the city began to draw to a close. Toronto at the turn of the century was a city that had been built under a system of minimum government interference; in the process, much had become irretrievably spoiled. The inner city, devoid of open spaces, was cut off from the waterfront. The street pattern, though rich in trees, was monotonous and uninspiring. Only University Avenue and perhaps Spadina seemed to offer some promise for the future. In short, the city's appearance at the end of the nineteenth century showed that no truly beautiful city arises as a result of piecemeal, individually conceived subdivisions, even when they are planned with the best of intentions. In the twentieth century, planning was once more to emerge as an instrument of government policy.

*City Engineer. Report, 1892.

THE FUNCTIONS OF THE CITY

Economic Structure

The economy of Toronto is indeed varied. Being a large metropolitan centre, the city produces goods and performs services of great diversity, not only for the local population but also for nearly all of southern Ontario and, in fact, for all Canadians, especially those in the West. In 1961 employment in the Metropolitan Toronto census area amounted to 789,651, which is about 43 per cent of the total population, an unusually high proportion compared with the national 35.5 per cent.*

First in employment is manufacturing, which is the livelihood of more than 234,500, or about 30 per cent of the labor force (Table 1B). Services constitute a broad category, which in recent years has assumed great importance in the economic structure of the Metropolitan Toronto census area, employing more than one quarter of the labor force. Trade, both wholesale and retail, accounts for 10.5 per cent of the employment, but finance for only 6.6 per cent. If the table showed the relative importance of the various groups in terms of income, some categories, such as finance, would assume much greater significance.

The Rise of Modern Manufacturing

Industrialization in Toronto results from a number of complex and inter-related factors, of which the advantage of a head start and the benefit of increasing concentration of manufacturing are the two most important. Early in the nineteenth century, in response to its local market and its growing significance as a focal point for the transportation system of Upper Canada, York had already begun to acquire specialized craftsmen and manufacturing establishments. Thus, by 1830, Toronto had become the main silversmithing centre in Upper Canada (Langdon). The government promoted the early development of printing for the publication of its own material and encouraged the printing of a weekly paper. Books, however, were not published until the late 1820's (Gundy). Steam engines were being manufactured in Toronto as early as 1833, and coaches for travel in Upper Canada in 1834 (Innis and Lower, pp. 296, 298 and 299).

It should not, however, be concluded that there was large-scale industrialization, for, according to the 1851 census, only 2,600 persons could be considered as engaged in manufacturing. Many of these were artisans—including, for example, 204 tailors and 384 makers of boots and shoes. Besides, Toronto had only 6.5 per cent of the manufacturing workers of Upper Canada, most of this

*The only data available refer to the census metropolitan area, which in 1961 had a population of 1,824,481 while the political unit of Metropolitan Toronto comprised 1,576,000 inhabitants.

Table 1A

**Labor Force 14 Years of Age and Over
in Metropolitan Toronto, by Industry and Sex, 1951***

<i>Industry</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Percentage</i>
Primary.....	3,688	355	4,043	0.7
Manufacturing.....	138,812	50,459	189,271	35.9
Construction.....	35,701	968	36,669	7.0
Transport, storage, public utilities.....	40,996	7,989	48,985	9.1
Trade.....	66,859	34,247	101,106	19.2
Wholesale.....	24,437	7,611	32,048	6.1
Retail.....	42,422	26,636	69,058	13.1
Finance.....	16,823	14,902	31,725	6.1
Services.....	60,856	48,928	109,784	20.9
Not stated.....	3,798	1,447	5,245	0.9
TOTAL.....	367,533	159,295	526,828	100.0
	69.7%	30.3%	100%	

*Census of Canada 1951, v. 4.

Table 1B

**Labor Force 15 Years of Age and Over
for Census Metropolitan Area of Toronto, 1961***

<i>Industry</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Percentage</i>
Primary.....	7,657	963	8,620	1.1
Manufacturing.....	170,615	63,896	234,511	29.7
Construction.....	49,174	1,881	51,055	6.5
Transport, storage, public utilities.....	56,115	12,586	68,701	8.7
Trade.....	96,400	50,096	146,496	18.5
Wholesale.....	37,667	11,927	49,594	6.3
Retail.....	58,733	38,169	96,902	12.2
Finance.....	27,000	25,338	52,338	6.6
Services.....	108,458	102,222	210,680	26.7
Not stated.....	13,599	3,651	17,250	2.2
TOTAL.....	529,018	260,633	789,651	100.0
	67.0%	33.0%	100%	

*Census of Canada 1961, v. 3, pt 2.

class being scattered through the colony and engaged in sawing timber and milling grain. In Toronto, industrial development was more varied than in other centres of south-central Ontario, but the number of employees per plant was proportionately no greater than in the other parts of the province (Spelt, pp. 67-72).

A general picture of manufacturing in Toronto on the eve of Confederation may be derived from the annual review of commerce that appeared in the *Toronto Globe* of February 12, 1866. It mentions, among other things, a rolling mill employing more than 300 men and producing a variety of goods including bolts, nuts and stoves; a cabinet factory employing 400 men and a meat-packing plant employing 300; and some textile- and tobacco-manufacturing as well as distilling and brewing (MacNab, pp. 59-80; Middleton, pp. 515-532). The 9,400 engaged in manufacturing in 1871, just before a depression, accounted for 10.8 per cent of those so employed in Upper Canada. During the 1880's and particularly during the 1890's, manufacturing grew rapidly in Toronto. The number of wage earners increased from 12,708 for 1881 to 25,242 for 1891 and 45,515 for 1901. Of great significance was the increasing geographical concentration of manufacturing that raised Toronto's percentage of the southern Ontario total to 25.5 per cent for 1891 and 34 per cent for 1901.

In assessing the growth of manufacturing in nineteenth-century Toronto, a number of factors must be considered. There was a striking lack of local natural resources, such powerful industrial attractions as coal and iron being entirely wanting. True, the rise of food-processing should be related, at least in part, to the increase in commercial agriculture, but the local market was probably of greater significance. Human factors, in particular that of personal initiative, played a dominant role in the expansion of industrialization; and it bears repetition that the choice of Toronto as capital was the most important factor in early industrial development. The maintenance of the city's lead in growth over its rivals attracted new industry and thus caused a mushrooming that has persisted to the present day. Toronto's development as a focal point for railways further strengthened its position. The adoption of the National Policy, with its high tariffs, stimulated industry in the city, especially after 1896, when the opening of western Canada and the development of mineral resources on the Canadian Shield coincided with a general recovery in world economic conditions. In the 1890's Winnipeg was too distant to engage in large-scale manufacturing and could not duplicate the industrial growth of Chicago, its United States counterpart. Neither did the Shield present a suitable environment for the creation of a metropolitan rival. In many ways, Toronto played the role of a Canadian Chicago, functioning as a great supply centre for western as well as northern development while its local market was growing richer. The brisk economic development of the late nineteenth century, coinciding with the geographical and financial centralization of manufacturing operations, supported and strengthened the position of Toronto as one of the few major industrial centres in Canada.

A few auxiliary factors in nineteenth-century industrialization merit discussion. In some ways the emergence of the Canadian Manufacturers' Association in Toronto in the middle of the century and its consolidation in 1900 reflected the city's dominance in Canadian manufacturing (Clark, pp. 1-12). It is impossible

to define precisely the part played by the C.M.A. in the introduction of new industry, but the occurrence of an organization devoted to sponsoring and promoting higher tariffs for manufacturers undoubtedly made the city attractive for many firms, particularly those of United States origin. In the early years, the favorably situated Toronto members dominated the meetings of the council and committees. While the policy adopted in 1907 of holding some council meetings in Montreal gave the members from that city a greater opportunity to participate in the activities of the C.M.A., the great body of members throughout the country remained without real representation (Clark, p. 80). Equally difficult to define was the work of the Board of Trade, which at various times led campaigns for the dissemination of electrical power, the strengthening of tariffs and the improvement of the harbor. The part played by the board in bringing about more favorable freight rates for Toronto shippers has already been referred to (p. 52). The board very early also took an active interest in the city's planning problems (Chapter VI).

Now, at mid-century, manufacturing contributes substantially to the economic welfare of Metropolitan Toronto and is the dominant economic activity. Most striking is its tremendous variety, all major industrial groups except tobacco-manufacturing being well represented. The most important group, according to the Dominion Bureau of Statistics classification, is that of iron and steel products, which is led by agricultural implements, sheet-metal products, iron castings, many different types of household, office and store machinery, and heating and cooking apparatus. Most of the production in the food-and-beverage group is accounted for by industries oriented almost entirely to the local market. Only a few, such as those engaged in distilling or the manufacture of chocolates or special foods, have a wider market and a national reputation. The production of all sorts of electrical apparatus and supplies is important not only locally but nationally and amounts to more than 25 per cent of the national output. More than half the batteries produced in Canada, for example, are manufactured in Toronto. The city's contribution to the nation's printing and publishing exceeds 30 per cent, the most important elements within this group being trade composition (53 per cent) and engraving, stereotyping and electric typing (48 per cent). The diversity of Toronto's manufacturing is such that only 13 of the 172 subclassifications of manufacturing given in the census are not to be found in the metropolitan area. Among the various nationally significant subgroups not mentioned previously are inks (86 per cent of Canadian production), typewriter supplies (75 per cent), miscellaneous non-ferrous metal products (63 per cent), soaps and washing compounds (61 per cent), scientific instruments (53 per cent), adhesives (52 per cent) and toys and games (52 per cent).

Heavy industries requiring large tracts of land for successful operation are generally not found in Toronto; small to medium-sized plants producing for the consumer's market are dominant. More than 80 per cent of the manufacturing establishments have fewer than 50 employees each but account for only 22.7 per cent of all manufacturing employment. Some 22 plants employ more than 1,000 workers each, but these plants account for 18 per cent of those engaged in manufacturing. Clearly the city is not dominated by any type of industry, nor do

a few large industries stand out. The average Toronto firm employs 44 workers, while its counterparts in Hamilton and Windsor, cities characterized by fewer and larger industries, employ 88 and 89 workers respectively.

Metropolitan Toronto accounts for just over 15 per cent of Canada's manufacturing and is exceeded only by Montreal, which accounts for 18 per cent. In number of production workers, Metropolitan Toronto ranks thirteenth among North American cities and Montreal tenth. According to a formula prepared by Rodgers (1957), Metropolitan Toronto has a diversification index of 075, which is exceeded in North America by Philadelphia only, with an index of 039.

The Emergence of Toronto as a Financial Centre

The Banks

A study of the development of Toronto as a financial centre throws light on the growth of the city and, in particular, on the emergence of the distinctive financial district to be described later. Any discussion of this nature has to be rather superficial since very few detailed studies have been made of the history of financial institutions in Canada. Furthermore, the general lack of an organized body of statistical data by which to measure and describe changes in financial control, especially in Toronto and Montreal, precludes any searching analysis.

Toronto's emergence as a financial centre independent of Montreal dates from the early nineteenth century. Serious rivalry with Montreal, however, did not emerge until the late 1860's and early 1870's. On the eve of Confederation, although Toronto had spawned various banks and had established a stock exchange as early as 1852, Montreal dominated Canadian finance. Toronto was, at the most, only a regional centre, having won domination over Kingston, Hamilton and London (pp. 40-41).

By and large, banking operations in Upper Canada, including those of the Bank of Upper Canada, were on a very modest scale compared with those of Montreal.* Besides, between 1857 and 1873, when its policies were dictated by E. H. King, the Bank of Montreal attempted to reduce, if not eliminate, all competition in Upper Canada (Hague; Masters, 1941) and in 1864 this bank's prestige was greatly enhanced when the government's account was transferred to it.

*"The Banks of Western Canada (Upper Canada) were at first almost entirely confined to the trade in agricultural exports and imports of manufactured goods. When the milling and railroad interests developed in the West (1850-60's) and received such liberal advances from the Banks, their business still depended almost entirely upon the agricultural interest. High prices for farm produce induced speculation in farm lands, country towns, mills and railroads, and furnished almost the whole of the rapidly expanding business of the Banks. The subsequent collapse, therefore, left the banks without any alternative resources. The Bank of Montreal, while heavily engaged in western business, was not so absolutely dependent upon it as the western banks. It had a large stake in the export timber trade of the country whose fluctuations were quite independent of agricultural prosperity; also in the shipping trade and in international exchange directly with New York City and Chicago, and through New York with Europe. Again the Bank of Montreal was not so heavily involved in land and railroad speculation as the commercial and Upper Canada Banks" (Shortt, 1905, pp. 95-96).

In addition, the wealth of the Bank of Montreal was substantially increased by remarkably successful speculations in gold in New York, where a branch had been opened in 1859 and the business of international exchange had been vigorously pursued. Such activities became dominant, and E. H. King was inclined to divert more and more of its funds (loanable capital) from the Canadian market. This dismayed and evoked the criticism of the banks of Upper Canada, which found it increasingly difficult to support the regular trade of the country (Breckenridge pp. 175-176).

At the same time two of the oldest banks in Upper Canada failed—the Bank of Upper Canada (Toronto) in 1866 and the Commercial Bank (Kingston) in 1867—and it was with some justification that the restrictive monetary policy of the Bank of Montreal was blamed. All in all, there was growing determination in Upper Canada, and particularly in Toronto, to break loose from the financial power of Montreal, just as the wholesale trade had done. It culminated in the formation of the Canadian Bank of Commerce by a group of Toronto business leaders. The new bank's first president was William McMaster, a former director of the Bank of Montreal, who strongly opposed that bank's policies (Ross, pp 18-23).

It should not, however, be concluded that Toronto entirely lacked a stable local bank, for the Bank of Toronto, founded in 1855, had grown slowly, characterized by a cautious and reserved policy. Later, in 1869, its manager, George Hague, spearheaded a remarkable attack on E. H. King through the Banking Committee in Ottawa and, by mustering the support of McMaster and others, was able to arrest the growing power of the Bank of Montreal. In 1869 the new federal government, greatly influenced by King, introduced legislation for the first Canadian bank act. The main provisions of the bill were to abolish the note issues of banks and to replace them with government notes, which the banks would have to purchase. The banks were to hold specie equal to 20 per cent of the secured notes in circulation and to one seventh of their demand deposits not bearing interest. Most of the banks, especially those in Upper Canada, would not have been able to buy the securities to be held by the government and still provide the necessary services for the various participants in the handling of grain and lumber, a trade long sustained by large seasonal loans. (For a discussion see Breckenridge and also Jamieson.)

If the bill had been passed, the system of branch banking in Canada would have collapsed and the United States system—the existence of small independent local banks providing local services and large banks in metropolitan centres dealing in the foreign and mercantile trade of the country—would have prevailed. There is little doubt that in Canada the role of the large metropolitan bank would have been inherited by the Bank of Montreal. Because of the activities of the Toronto group, particularly those of George Hague, who travelled far and wide over Ontario, Quebec and the Maritimes to gain support, strong opposition developed, obvious to the government the first day of the debate in the House, and the bill was withdrawn. Later a more moderate bill, favorable to the banks of Upper Canada, was passed. Not only was the system of branch banking

preserved, but Toronto's role as regional financial capital was saved. A new and significant confidence was gained which helped to make Toronto a growing rival of Montreal and a leading partner in the development of western Canada.

While Montreal won control of railroad development in the West by gaining the Canadian Pacific Railway charter, Toronto interests participated in Western economic development by establishing branch banks. By 1906, 265 of these had been established in western Canada, of which 87 were of Toronto origin (including 21 branches of the banks of British Columbia absorbed a few years earlier by the Bank of Commerce) and 83 of Montreal origin (Table 2). Eight years later, by 1914, the number of branch banks had risen to 1,095, but the ratio of Toronto and Montreal interests remained the same. Furthermore, trust and loan companies, investment houses and insurance companies with head offices in Toronto were engaged in the business of lending money for Western expansion. There is little doubt that this boom, brought about by the rise of the grain economy in the West, spawned many new financial institutions in Toronto and caused the expansion of the existing ones.

In the 1880's the financial community of Toronto was stimulated by the development of trust and loan companies supported in large part by British capital. The rural communities in southern Ontario became increasingly interested in borrowing money to finance the building of schools, churches and other social facilities. Farmers no longer regarded mortgages as evil and began to take them out to build new houses and barns. Toronto provided most of the money to support these ventures in south-central and western Ontario, and the trust and loan companies grew accordingly.

The Stock Exchange

The growth of the Toronto Stock Exchange to be one of the leading organizations of its kind in the world is of special interest, for it reflects the broadening of financial institutions in Toronto in the twentieth century and their importance in the development of Canadian mineral and forest resources. Indeed, the ability of Toronto financiers to wrest control of the Canadian Shield brought great wealth to the city and laid the basis for further striking growth, which was to reach a peak in the mid-1950's.

In the late nineteenth century, Toronto interests were engaged in promoting mining properties in the Kootenays of British Columbia and "Spokane was faced with the beginning of competition with Toronto" (Innis, 1936, p. 281). The promotion of the War Eagle mine, in southeastern British Columbia, in 1887 by W. G. Gooderham, T. G. Blackstock, the Hon. G. A. Cox and others is an example of the activity of Toronto groups in Western mining development. In addition, strong demands for the building of the Crowsnest Pass line of the Canadian Pacific to check United States trade in the Kootenays and to facilitate mining expansion came from Toronto (Innis, 1939, p. 22).

In 1898 a group of Toronto financiers merged two small mining exchanges founded in 1895 to form the Standard Stock and Mining Exchange. The function of the new organization was to facilitate the promotion of mining ventures that the more conservative Toronto Stock Exchange would not handle.

Table 2
Branch Banks in Western Canada, by City or Region of Origin, 1906 and 1914

	1906	Montreal	Toronto	Quebec City	Hamilton	Ottawa	Eastern Townships	Other origin	Total
British Columbia and Yukon Territory.....	34	27		3		4			68
Alberta.....	17	21	18						56
Saskatchewan.....	9	13	13	5					42
Manitoba.....	23	26	30	14					99
TOTAL, WESTERN CANADA.....	83	87	61	22		5			265
	(31%)	(33%)							
	1914	Montreal	Toronto	Winnipeg	Hamilton	Ottawa	Eastern Townships	Other origin	Total
British Columbia and Yukon Territory.....	110	79	32	10		2		14	247
Alberta.....	104	90	54	8		1		6	263
Saskatchewan.....	74	116	132	22		13		24	381
Manitoba.....	45	59	70	24		6		—	204
TOTAL, WESTERN CANADA.....	333	344	288	64		22		44	1095
	(33%)	(34%)							

NOTE: The statistics used in this table have been compiled from the lists of Canadian branch banks in the 1906 and 1914 editions of the Canadian Almanac.

The future of the new exchange seemed uncertain until 1903, when remarkably large deposits of silver were discovered at Cobalt, on the Shield about 300 miles north of the city. Mining promotion in Toronto was greatly stimulated, and the discovery of gold in northern Ontario—at Porcupine in 1911 and at Kirkland Lake in 1912—further increased the activity. From 1911 to 1914 shares traded on the Toronto Standard Stock and Mining Exchange averaged 25 million annually, exceeding the number traded on the Toronto and Montreal exchanges combined. Their value, of course, was much less.

It is true that much of the capital for development in northern Ontario came from various groups in different centres. The Timmins-McMartin-Dunlop Syndicate of Montreal, for example, provided capital for the Hollinger mine; Jules Bache and Associates of New York, after 1915, for the Dome mine; a group of Buffalo interests, for Wright-Hargreaves; and J. P. Bickle and Associates of Toronto, for the McIntyre mine. After the spectacular mineral discoveries in northern Ontario, however, especially the silver finds at Cobalt, which were unbelievably rich and made many fortunes in a matter of days, the public wanted to participate not so much by prospecting as by investing in speculative shares. Thus the mining exchange in Toronto became the medium through which the public at large could invest its money and both honest and dishonest prospectors could raise capital. More and more of the prospectors who could not raise large sums privately turned to the Toronto mining exchange to float stock, and gradually the reputation of Toronto as a mining centre was built up. One of the most striking examples was the stock-floating done by Sir Harry Oakes, who in this way developed the property of Lake Shore Mines.

Another factor was the control Toronto wholesalers and distributors exercised from the beginning over most of the shipments of goods to the mining districts of northern Ontario. These dealers were undoubtedly favored by the fact that the Temiskaming and Northern Ontario Railway, the building of which stimulated mining exploration, constituted a direct link with Toronto via the Grand Trunk south of North Bay. Sponsored by the provincial government to open the north, the railroad ensured that the resultant trade would be handled by Toronto rather than by its rival, Montreal. (See also pp. 52-53.)

Statistics on freight traffic in northern Ontario show that for the years 1909 and 1910 at least 90 per cent of the trade came from Ontario towns, mainly from Toronto, and that 10 per cent came from Quebec points, mainly from Montreal (Field, p. 73).

The influence of Toronto on Cobalt, the leading mining centre in the first decade of mining development in northern Ontario, may be measured by examining advertising in copies of the Cobalt *Daily Nugget*. It is true that most advertising was placed by local firms, but in that placed by the two competing metropolitan centres (primarily law firms and stock brokers) Toronto was represented by more than three to one. In a few issues of the *Daily Nugget*, hotel arrivals were listed, and they were five to one in favor of Toronto.

Increasingly Toronto became the focal point of all mining developments on the Canadian Shield. By tabulating the locations of head offices of mining industries (exclusive of activities in sedimentary-rock formations) and by establish-

ing places of residence of the members of the boards of directors of mining companies, it is possible to measure Toronto's growing importance in the mining industry of Canada. Twenty-five of the 52 mining companies listed in 1933 had head offices in Toronto (Table 4) and, of the 336 directors listed, 112 lived there (Table 3). Personal factors undoubtedly had a profound influence on the growth of mining interests in Toronto and the association with the city of such well-known individuals as J. M. Murdoch, W. P. Bickle, W. H. Wright and Sir Harry Oakes. It is noteworthy that in 1922, when the New York syndicate of Chadbourne and Thomson came to Canada to develop the mining properties around Noranda, Que., they consulted John B. Holden, a prominent Toronto barrister, because of his close association with the Canadian mining industry (Roberts, pp. 49-50). Later J. Y. Murdoch, of Toronto, became president of Noranda Mines.

Table 3
Number of Directors of Major Mining Companies*
According to Place of Residence, 1933†

<i>Toronto</i>	<i>Montreal</i>	<i>New York</i>	<i>Other Canadian</i>	<i>Other U.S.A.</i>	<i>U.K.</i>	<i>Province of mining operations</i>
71	17	14	25	26	10	Ontario
18	17	4	9	2	0	Quebec
14	4	7	8	2	—	Prairies (mainly Manitoba)
9	12	22	33	7	5	British Columbia, Yukon Territory and Northwest Territories (mainly British Columbia)
112	50	47	75	37	15	TOTAL 336
(33%)	(15%)	(14%)	(22%)			

*Exclusive of companies operating only in sedimentary formations.

†Derived from descriptions of mining companies in the Financial Post survey of mines.

Table 4
Location of Head Offices of Major Mining Companies,* 1933†

<i>Toronto</i>	<i>Montreal</i>	<i>New York</i>	<i>Elsewhere</i>	<i>Province of mining operations</i>
20	—	1	5	Ontario
2	4	—	1	Quebec
2	—	—	3	Prairies (mainly Manitoba)
1	—	3	10	British Columbia, Yukon Territory and Northwest Territories
25	4	4	19	TOTAL 52

*Exclusive of companies operating only in sedimentary formations.

†Derived from descriptions of mining companies in the Financial Post survey of mines.

Most of the large and influential companies, such as International Nickel, chose Toronto for their Canadian offices in preference to Montreal. By 1959, the number of mining companies (exclusive of mining companies in sedimentary-rock formations) had increased to 255, of which 174 (68 per cent) had head offices in the Lake Ontario city. Of the 1,674 directors listed, 875 (52 per cent) lived in Toronto. According to their measures, only about 10 per cent of the mining industry was found in Montreal, Toronto being clearly the main centre (Table 5).

It has been indicated that Toronto's growth as a national financial centre and rival of Montreal was influenced largely by land development on the Prairies and the discovery of minerals on the Shield. In short, Toronto's sphere of interest expanded greatly in the twentieth century, encompassing the Shield and overlapping with Montreal's in the West. Toronto's recent ascendance over Montreal in certain elements of finance and its exertion of greater influence in the Western hinterland during the last decade may be traced to the economic depression of the 1930's.

It is agreed that Montreal never fully recovered from the crash of 1929, which caused the bankruptcy of at least five prominent brokerage houses. Until that time, most of the high-value stocks (in banks, utilities, industrials, etc.) were traded on the Montreal exchange. In 1925, in fact, 86 per cent of all the trading by value in Canada was done on the Montreal Stock Exchange, and the volume remained consistently above 70 per cent until the depression. In 1933 Toronto's share of high-value securities on the market exceeded that of Montreal for the first time and has remained ahead ever since.*

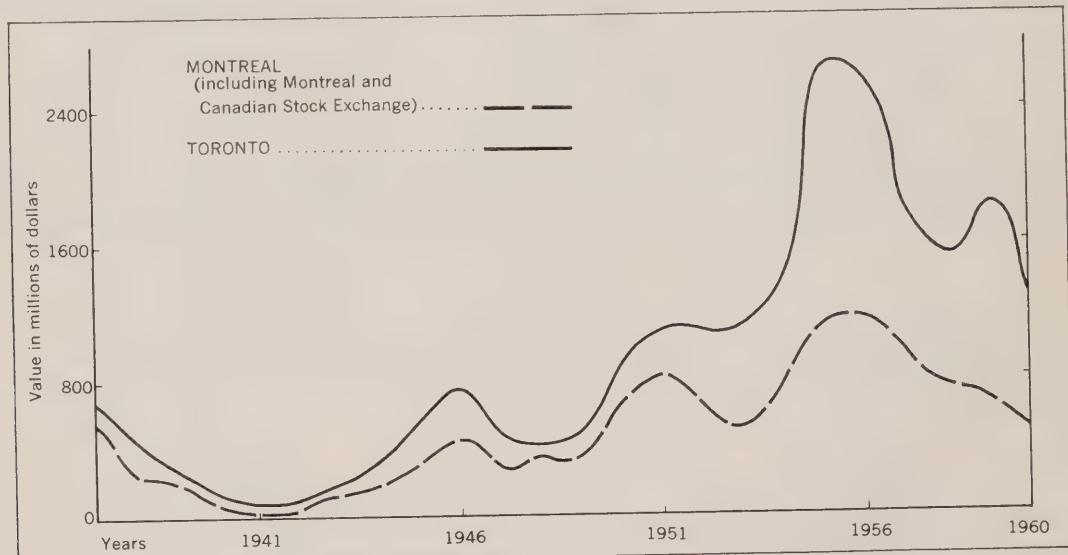


FIGURE 10. Value of stock-exchange transactions, 1937-60. The greater value of stock-market transactions in Toronto compared with those in Montreal reached a maximum in the middle 50's.

*In 1934 the Toronto Stock Exchange and the Toronto Standard Mining Exchange amalgamated to form the Toronto Stock Exchange, and innumerable low-value issues were listed on the T.S.E., with a corresponding distortion of the statistics. Since 1937 it has been possible to compare the value of all transactions on the two Montreal exchanges (combined) with those of the Toronto Stock Exchange. (Figure 10).

Table 5
Location of Head Offices and Directors of Major Mining Companies* In Canada, 1959†

Province of mining operations	Toronto		Montreal		Other Canadian cities		New York City		Other U.S. cities		All other locations	
	H.O.	Direct- tors	H.O.	Direct- tors	H.O.	Direct- tors	H.O.	Direct- tors	H.O.	Direct- tors	H.O.	Direct- tors
Ontario.....	81	413	3	33	3	61	1	41	2	33	13	
Quebec.....	44	228	18	110	4	56	1	35	2	26	0	3
Maritimes.....	4	20	2	9	3	10	—	11	—	10	—	3
Prairies.....	15	65	—	6	10	60	1	11	0	8	0	4
Y.T. and N.W.T.	9	46	—	5	3	10	—	7	—	4	—	1
B.C.	4	21	2	14	18	97	0	4	1	22	—	3
Miscellaneous...	17	82	—	5	4	29	1	20	2	20	—	15
TOTAL.....	174	875	25	182	45	323	4	129	7	123	0	42
Percentages	68	52	10	11	17	19	2	8	3	7	0	3
Directors (total)	1,674											
Head offices (total)	255											

*Exclusive of companies operating in sedimentary formations.

†Derived from company descriptions in the Financial Post survey of mines, 1959.

The increase in the price of gold in the 30's stimulated mining development on the Shield, most of the financing being done through the Toronto market. After World War II, development of mining properties increased greatly and the Toronto Stock Exchange grew accordingly. The oil industry of Alberta was heavily financed from Bay Street, as were the copper and uranium industries of the Shield; and Toronto tightened the hold on its northern and western hinterlands. This growth of the exchange, coupled with improvement in its trading facilities (the installation of high-speed electronic equipment and a data-processing centre) and the establishment of branches of Toronto brokerage houses throughout Canada, led to further acquisitions in the industrial market.

The importance of finance in the economic structure of present-day Toronto cannot be properly measured by employment, which makes up, at most, only 7 per cent of the labor force. What is really significant is the volume of money flowing through firms in the city for investment in all parts of Canada as well as in the city region. The fact that the stock exchange accounts for about two thirds of the value of Canadian sales of stock suggests the importance of Toronto in Canadian finance. No city-by-city statistics are available for over-the-counter bond transactions, but most authorities in Montreal and Toronto agree that at least three quarters of all Canadian sales are made in the latter city. The importance of bonds in the investment market cannot be exaggerated; in many ways they are the best indicator of the vigor of the Toronto financial community. Further, a little more than half the life insurance companies in Canada, accounting for 37 per cent of all life assets, and more than half the fire and casualty firms, with 52 per cent of all fire and casualty assets, have head offices in Toronto, as have trust and loan companies, which hold 35 per cent of all trust and loan assets. Finally, three chartered banks, with approximately 45 per cent of Canada's bank assets, have head offices in Toronto. In banking, however, Montreal remains ahead, with about 55 per cent of all bank assets (Table 6). Not necessarily a measure of financial function but an indication of the economic health of the city are statistics on bank clearings. In 1961, Toronto's share of bank clearings in Canada was 37.3 per cent as compared with 31 per cent in 1948 (Figure 11). It is also worth noting that corporations with head offices in Toronto pay, on the average, 30 per cent of all the corporation taxes paid in Canada.

Those engaged in finance just exceed 52,000 (Metropolitan Toronto census area) and include such various types of employees as clerks, salesmen, economists and legal experts. The services most of them perform for the local population are in no way different from those of their counterparts in other towns and cities of Canada. The number engaged in financial activities within the financial district (stock-and-bond dealers, economists, brokers in foreign exchange, trust officers, etc.) and concerned in the main with the flow of capital has been estimated from different sources to be no more than 2,800.

Trade

Retail Trade

Metropolitan Toronto is the leading retail centre in Canada, its sales constituting about 12 per cent of the national total. It is closely followed by Metropolitan Montreal. The relatively high purchasing power of the metropolitan area, com-

Table 6
Bank Assets as Percentage of Canadian Total, by City of Origin, 1890-1960

Year	Montreal	Toronto	Winnipeg	Quebec City	Hamilton	Halifax	Other cities	Total
1890	44.5	28.3	0.6	5.9	2.4	8.3	10.0	100.0
1906	43.7	38.7	0.6	4.8	3.3	1.4	7.5	100.0
							(Weyburn, Sask.)	
1920	52.0	40.0	5.0	0.0	2.8	0.0	0.2	100.0
1932	58.5	41.5	0.0	0.0	0.0	0.0	0.0	100.0
1960	55.0	45.0	0.0	0.0	0.0	0.0	0.0	100.0

NOTE: This table has been compiled from various sources, mainly from the Journal of the Canadian Bankers' Association and the Monetary Times.

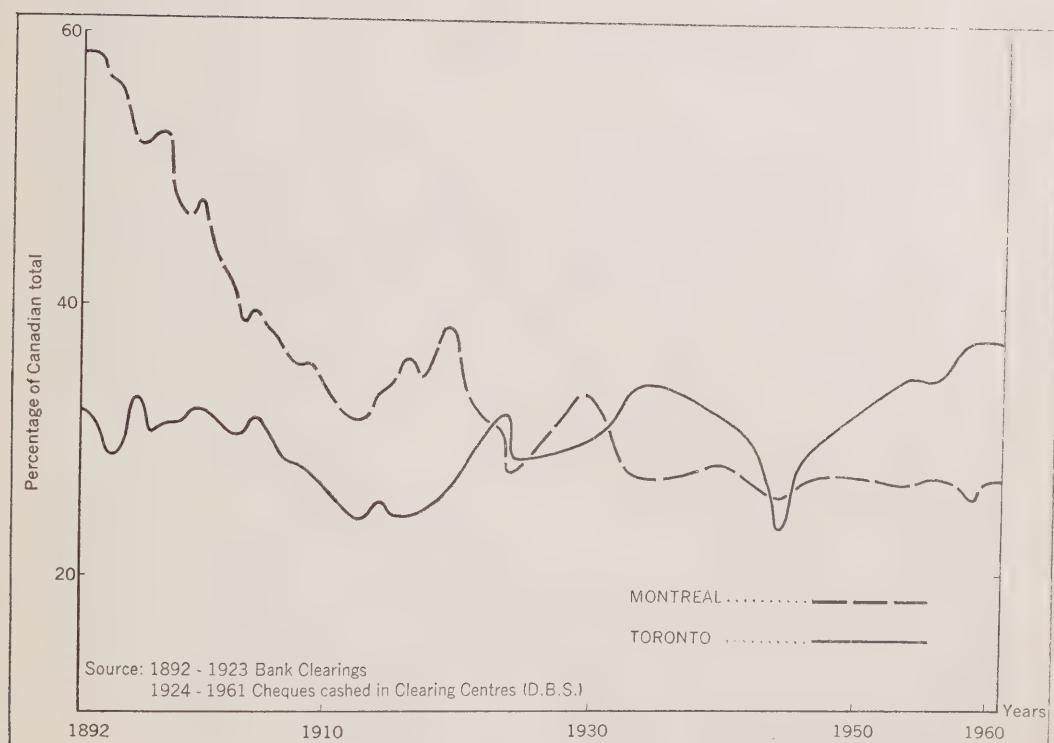


FIGURE 11. Bank clearings as a percentage of the Canadian total, 1892-1961. In spite of vigorous economic development in other Canadian cities, Toronto's share of all bank clearings increased in the postwar period and reached a peak in 1960.

bined with the shopping attraction the city holds for many residents of southern Ontario, provides a high volume of retail trade. In many ways retailing in Toronto mirrors that of many large metropolitan centres in the United States, foods and beverages, general merchandise and automobiles being the most important commodities. More than 80,000 persons find employment in various kinds of retailing throughout Metropolitan Toronto, general merchandising accounting for 36 per cent and foods for 22 per cent. The extent to which the city depends on outside buyers is difficult to measure. Some indication can be gained, however, by comparing statistics of the retail trade of Metropolitan Toronto with those of Metropolitan Hamilton, a medium-sized industrial city with a rather restricted trade area (Table 7). Retail sales per capita in Metropolitan Toronto exceed those of Hamilton in all categories except building and hardware supplies and furniture and appliances. Since the median earnings of the labor force in 1951 were lower in Toronto than in Hamilton, it could be argued that the proportionately higher volume is due to Toronto's relatively large number of wealthy people and the visits of outsiders for special shopping. Nearly all outside shoppers come from south-central Ontario, but every part of the province is represented. To buy certain products such as high-quality home furnishings or special jewelry, shoppers may come from as far away as the Prairie Provinces.

Wholesale Trade

Small in terms of employment but of great significance in the economy of the city is the wholesale trade. The factors contributing to the emergence of Toronto in the nineteenth century as a point of distribution are discussed in Chapter III. Subsequent improvements in transportation and the general centralization of wholesaling that have occurred in the twentieth century have strengthened the position of the city as a national distribution centre surpassed only by Montreal. More than 2,600 firms are engaged in different types of wholesaling, employing about 50,000 persons and accounting for approximately 19 per cent of all sales made in Canada. It is impossible to know with absolute precision the relative values of local, regional and national distribution, but it should be noted that several companies have national markets. Toronto, for example, is the distribution centre for more than 41 per cent of all the chemicals and drugs sold in Canada, 46 per cent of all the books and periodicals and 36 per cent of all the jewelry. The city, on the other hand, accounts for only 11 per cent of the Canadian sales of hardware supplies.

Food products (including groceries) and tobacco make up 22 per cent of all the wholesale transactions in Toronto, most of this distribution being local and regional. Machinery (with equipment and supplies), automobiles and construction supplies also rank high. As would be expected, all goods are represented in any wholesaling list, the city functioning as a great emporium through which passes the widest possible variety.

The Port

Significant at different times in the city's history and now of increasing importance in its function as a trading centre is the port. At present, Toronto ranks as the fifth port in Canada, its volume of trade in the last decade having

Table 7
Per Capita Retail Sales in Metropolitan Toronto and
Metropolitan Hamilton, 1951
(in dollars)

	<i>Metropolitan Toronto</i>	<i>Metropolitan Hamilton</i>
All retail sales.....	1,114.70	922.30
Foods and beverages.....	349.19	326.74
General merchandise.....	191.63	114.14
Automobiles.....	249.49	231.20
Apparel.....	89.87	81.99
Building and hardware supplies.....	51.83	57.18
Furniture and appliances.....	41.00	41.09
Drug group.....	36.11	33.13
Other retail goods.....	108.22	94.12
 Total value of retail sales.....	 1,244,003,100	 256,010,000
Median earnings of labor force.....	2,179	2,236

SOURCE: Census of Canada, 1951 (Bulletin CT-13).

NOTE: Calculations based on 1961 data for the two census metropolitan areas do not reveal any significant change in the ratio of the per capita sales.

averaged a little less than 5 million tons a year. More than three quarters of the trade handled is made up of imports. There are two main types of trade: that between Toronto and other Canadian and United States ports on the Great Lakes, which accounts for at least 85 per cent of the volume, and the direct overseas shipments, which have increased sharply since the opening of the enlarged seaway.

Great Lakes trade at the port of Toronto is mainly in heavy, bulky goods such as coal, grain and petroleum products. Coal has consistently been the most important cargo. In the early 30's, after the opening of the Welland Canal, it constituted almost half the trade. In the late 50's, coal shipments averaged 1½ million tons, an increasing proportion of which was used to feed the furnaces of thermoelectric plants on the lakefront. The coal comes from the Appalachian fields in Pennsylvania and West Virginia and is shipped from Lake Erie ports, of which Toledo is the most important. Trade in petroleum products, including gasoline, has averaged more than 1 million tons over the last few years. About 170,000 tons come in from United States ports; some 400,000 tons arrive from Ontario ports, mostly from the refineries at Port Credit, only a few miles west of the city. Each year, about half a million tons are shipped from Toronto, mainly to small ports farther east on Lake Ontario for further distribution. The grain trade at the port of Toronto is by no means insignificant: it averages more than 800,000 tons annually. So far it is entirely coastwise and involves only Canadian ports. Incoming shipments make up almost two thirds of the total, and wheat is

dominant. Among the other major commodities shipped in the lakes trade are sand, gravel and crushed stone, cement, soya beans and general cargo. Undoubtedly general cargo has by far the highest value and comprises a great variety of products.

Comprising 15 per cent of the volume but very much more of the value is the direct overseas trade. In 1963 foreign ships other than United States vessels loaded and unloaded cargo totalling 1,045,262 tons, of which 658,763 tons were imports and 386,499 exports. Many different commodities including automobiles, specialty foods, steel products and chemicals made up the imports in 1963. Soya-bean meal, oil and scrap iron were the only important exports.

The influence of the port on the growth of Toronto at different times in the city's history is difficult to measure. The part played by the harbor in the founding has been discussed in Chapter II. The volume of trade reached a peak in the second half of the nineteenth century, when large quantities of grain and lumber were handled in the port. In the 1880's, however, trade began to fall off, and by 1912 only some 340,000 tons went through.

In 1911, however, the federal government passed the Toronto Harbor Commission Act, which ended a period of divided control of the harbor. During the period of efficient planning and administration thus inaugurated, trade slowly increased and in 1929 shipments through the port totalled 959,000 tons. Significant factors in the development of the port of Toronto were the opening of the new Welland Canal in 1931 and the more recent completion of the St. Lawrence Seaway.

The entrance of large lakers into Lake Ontario through the Welland Canal after 1931 greatly stimulated trade, and shipments of grain from the head of the lakes and coal from Lake Erie ports increased enormously. Total trade reached $2\frac{1}{2}$ million tons in 1933, and never thereafter did it go below 3 million tons. After the Second World War, trade on the lakes continued to increase and was gradually augmented by direct overseas shipping. In the late 40's, small motor ships of Dutch, Swedish, British and German origin, averaging 2,800 tons and able to navigate the small St. Lawrence canals of 14-foot draft, began to appear in the lakes with increasing frequency. Toronto became an attractive port of call, and the direct overseas trade increased from a little less than 20,000 tons for 1948 to more than 287,000 tons for 1958. The opening of the enlarged seaway in 1959 allowed the entrance of larger ocean vessels into the lakes and direct overseas trade in Toronto rose to 713,186 tons for 1959 and 1,045,262 tons for 1963.

Toronto as a Service Centre

Reflecting the growing importance of Toronto as a metropolitan centre as well as the rising standard of living in Canadian society are the large numbers who find employment in what are broadly classed as services. To be more precise, 210,680 persons, or 26.7 per cent of those employed in the Metropolitan Toronto census area, fall into this category. Services, comprising education, health and welfare, religion, recreation, business services, personal services, etc., employ 167,722. Employment in the federal, provincial and municipal governments is almost 43,000.

On a value basis, Metropolitan Toronto accounts for 13 per cent of all services in Canada. In 1951, furthermore, services per capita in York County were \$139.16 while the average for all of Canada was \$77.55.

It is also noteworthy that, on a value basis, Metropolitan Toronto provides one third of all Canadian business services and takes in just a little less than 40 per cent of all travel-bureau and ticket-agency receipts. In addition, 56.8 per cent of all the advertising-agency business done in Canada is transacted in Toronto.

The main characteristic of metropolitan status is the leading position a city occupies in the performance of a great variety of functions. In many fields, as already shown, Toronto is the most important centre in the nation, and in some it even plays a leading part on the North American continent. So far the discussion has dealt mainly with economic functions, but in other aspects Toronto plays a leading, sometimes national, role and finds itself in healthy competition with Montreal. A few examples will illustrate.

As a primate city, Toronto attracts outstanding talent and skill in all fields of endeavor from all parts of English-speaking Canada. For the performing arts it is important as the headquarters of the English network of the Canadian Broadcasting Corporation. CBC Toronto has a permanent staff of 2,300 and hires some 7,000 performers annually. About two thirds of all English programming, exclusive of pick-ups from United States networks and relayed broadcasts, originates in Toronto. If, however, the French-language network and the International Service are taken into account, slightly less than a third of all CBC programs originate in Toronto. The city is thus the fourth-ranking television and radio production centre in North America, after New York, Hollywood and Montreal.

Finally, the city has a wide range of educational facilities, at the apex of which stands the University of Toronto, a provincial institution of national and international reputation. In the winter of 1960-61 it had an enrolment of 15,624 students. Its graduates of 1961 were awarded 25 Woodrow Wilson Fellowships, a total surpassed on the continent only by Harvard, Yale and Princeton.*

The University of Toronto Press and several commercial houses help to make Toronto a leading publishing centre. On the basis of value, according to the Dominion Bureau of Statistics, 79.2 per cent of all the Canadian books of 1960 were published in the Toronto area.

Present Economic and Non-economic Forces

A combination of historical forces has brought about the rise of a very diverse economic structure in Metropolitan Toronto. Viewed in terms of the contemporary environment, the continued growth of manufacturing, trade and finance can now be explained within the framework of the market, labor supply and transportation facilities.

The Market

Of the various factors in the location of economic activity in Toronto, the market factor is most important. The local market, comprising a population of more than 1.8 million, is rich and varied; and the regional market of southern

*University of Toronto, 1961, President's Report.

Ontario and southern Quebec, made up of another 9.5 million, is readily accessible via truck and rail. Statistics on retail sales, a reliable measure of the consumers' market, show that York County, which has 95 per cent of its population and nearly all of its economic activity concentrated in Metropolitan Toronto, has the highest retail sales per household of all counties in Canada. In 1961 the value of retail sales in York County reached \$2,023,812,400, or 32 per cent more than the per capita retail total for the whole country.

Statistics on wholesale trade also indicate the value of the market. When the concept of population potential is applied and wholesale sales are substituted for population figures and actual transport costs for distance, market-potential values can be computed. Thus, in Figure 12, Toronto's dominance in Ontario is apparent. Equally clear are the existence of two poles of market potential in Canada—at Montreal and Toronto—and the rapid diminution of values beyond their immediate vicinities (Kerr and Spelt, 1960).

Labor

Over the years the development of a diverse economic structure has created a remarkably varied supply of labor, which in turn has become increasingly important as a location factor in Toronto. A labor pool ranging greatly in skills and costs makes Toronto attractive to any prospective employer who may not find his special requirements in a small to medium-sized community. This applies particularly to the hiring of technical staff and very highly skilled labor for duties and tasks not to be found outside a metropolitan centre.

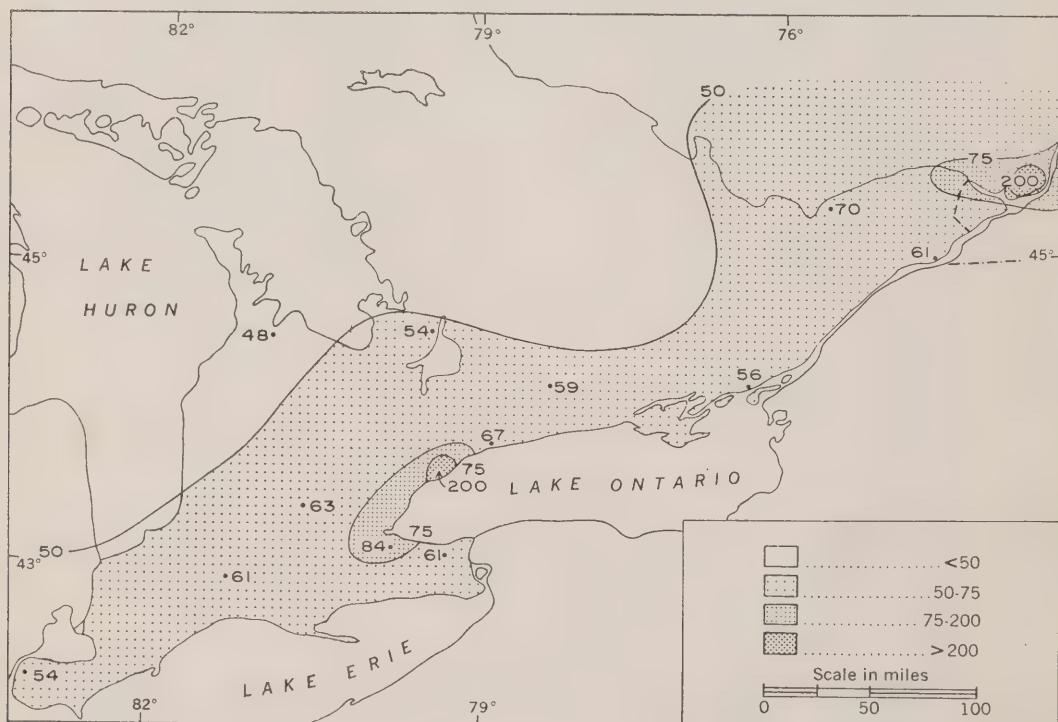


FIGURE 12. Indices of market potential, which reach their highest values in Metropolitan Montreal. Toronto represents a second major concentration.

At the other end of the scale, the abundant reservoir of inexpensive unskilled labor forms the economic basis of many activities. Postwar immigration has brought to Canada, and particularly to metropolitan centres, thousands of European immigrants, many of whom are unfamiliar with the language and are forced to engage in menial jobs at low wages. The downtown female labor force has been greatly augmented by such immigration and innumerable small industries have thus been maintained (Kerr and Spelt, 1957).

Throughout Toronto, but mainly in the suburbs, housewives have been employed in increasing numbers especially in assembling and packaging. There are instances in which firms have investigated an area to discover the potential female labor supply and, once in operation, have arranged work schedules to meet housewives' requirements as far as possible.

By and large, female workers are in excellent supply in Toronto, their relatively high percentage being one of the striking characteristics of the labor force. In 1960, more than 46 per cent of those employed in Metropolitan Toronto were females.

Labor costs in the metropolitan area vary greatly from one industry to another (Kerr and Spelt, 1960). Although in the category of skilled males, costs are above the provincial average, wage levels are below those of several medium-sized industrial communities, notably those of Hamilton and Windsor. In semi-skilled and unskilled labor, similar discrepancies exist. Unskilled female labor costs are very low in Toronto either because of the large pool of females or because of the employment of such large numbers, which in turn attracts more workers.

Transportation

For many manufacturers and wholesalers, location in Toronto has real advantages in terms of transportation facilities and costs (Figure 13). The city has functioned for many years as the main focal point for routes in southern Ontario and, as such, has developed all the facilities and cost advantages of a major distribution centre. Frequent pick-ups and deliveries by rail and truck result in savings; and overnight services to Windsor and Montreal are common. Many firms importing parts from the United States find the air-freight facilities at Malton Airport indispensable to their operations. Deliveries ranging from small packages to heavy bulky materials made during the navigation season by direct overseas shipment through the St. Lawrence Seaway are increasing in quantity.

Other advantages include a large number of special competitive and commodity freight rates generally not found at other centres. Because of f.o.b. shipments, many manufacturers can avail themselves of the lower prices of materials not manufactured in Toronto. Small manufacturers, distributors and others can use the pool cars available for less-than-carload shipments, thereby lowering their shipping costs. Smaller centres obviously cannot offer these facilities.

Materials

The industrial and wholesale structure of Toronto does not depend to any great extent on the accessibility of raw materials. Only a few industries, such as the manufacture of bricks in the Don Valley and the processing or distribution

of certain foods (dairy products or fresh vegetables) have any significant relation to the local natural environment.

Nearly all manufacturing in Toronto is concerned with the further processing of innumerable secondary materials such as steel, plastics and paper. Such products are assembled from far and wide, often by distributors whose facilities constitute one of the chief attractions to the host of small to medium-sized industries. The city is truly a storehouse of a remarkable variety of materials easily obtained by manufacturers who cannot afford to maintain large inventories. Furthermore, spare parts for machines can be obtained quickly in Metropolitan Toronto, with the result that delays in production caused by the failure of equipment can be eliminated. All in all, by its very size the large metropolitan centre creates an environment in which it becomes profitable for a great number of distributors to store the widest possible variety of materials and parts. This variety, in turn, is advantageous, particularly to the small manufacturers engaged in the fabrication of consumer goods from substances of many kinds.

Other Factors

Although the local market and superb accessibility to other Canadian markets contribute most to economic activity in Toronto, other factors in combination with the aforementioned often influence decisions on location. To many European and United States firms either Toronto or Montreal is the best place to establish a sales office. When the decision is made to begin manufacturing in Canada, the sales office is often changed into a small manufacturing plant, and the location in the large metropolitan centre thus becomes fixed, even though a smaller centre

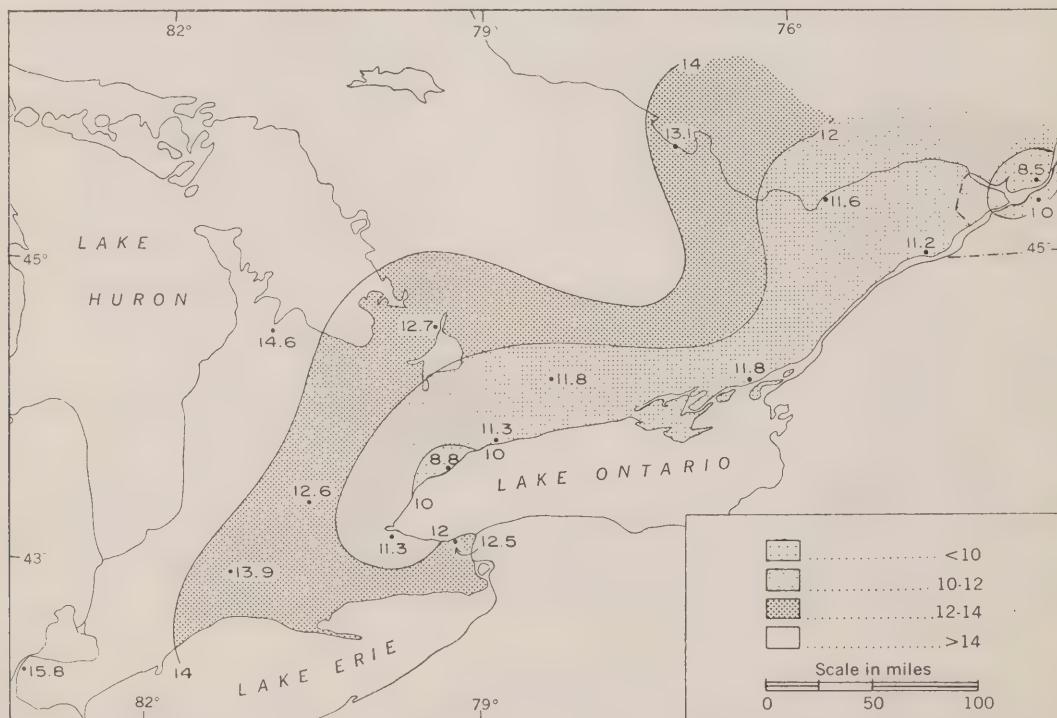


FIGURE 13. Indices of transportation costs are lowest in Metropolitan Toronto and Montreal and are almost uniform through the rest of the region.

may be more economic. These initial decisions undoubtedly favor one or the other of the two large metropolitan centres. Besides, because of the structure of the Canadian market, a company would want to maintain a sales office in one of the large centres even if it contemplated the development of its manufacturing facilities in a small community. For economy of operation, however, it would prefer to keep all its facilities under one roof.

Many companies prefer Toronto so as to be close to a large number of financial houses, such as investment firms, trust companies and banks, where capital can be raised. Banks are particularly influential in that many inquiries regarding a Canadian location come through their foreign service branches in Toronto or Montreal. To develop and hold an account, they will strongly suggest a location close to their facilities. To hold a client once acquired or an account once developed, legal and chartered-accounting firms will emphasize the advantages of Toronto.

In building or leasing a plant, the prospective company finds advantages in Toronto that are lacking in smaller centres. It may buy land outright, employ an architect and builder and construct a plant. It may engage in one of several different types of package deals: the company may buy the land from a builder with the understanding that the latter will construct the plant; or it may lease a building that has already been built. The main advantage of the larger centre lies in the wide choice of purchases or contracts, although land costs are higher than elsewhere.

A number of personal factors influence the choice of Metropolitan Toronto, the preference for living in a large city being the most important. There are senior company representatives who admit that operations could be just as successful or even more so in a smaller centre but who, because of their preference for living in Toronto, make no move. This applies not only to local firms but also to many that have come from outside, particularly from the United States.

A Metropolitan City

In the twentieth century the primacy of Toronto steadily increased and the city's provincial rivals—they can hardly be described as such—fell farther and farther behind. In 1951 and 1961, for example, the population statistics for the major metropolitan centres of Ontario were as follows:

	1951	1961
Metropolitan Toronto.....	1,117,470	1,576,000*
Metropolitan Ottawa.....	292,476	429,750†
Metropolitan Hamilton.....	272,327	395,189†
Metropolitan London.....	128,977	181,283†

*Political unit. The population of the census unit in 1961 was 1,824,481.

†Census unit.

The city became increasingly representative of the province and wide areas far beyond, attracting their talents and skills.

The primacy, important as it might be, had nevertheless to be shared with Montreal. In 1951, the population of the latter was 1,395,400 and by 1961 it had risen to 2,109,509. With these two primate cities, Canada is remarkably different from most other western nations. The causes of the difference are buried in the historical geography of the country and in the contrasts between Lower and Upper Canada, between French and Anglo-Saxon.

It should be noted, however, that in fulfilling its metropolitan functions the city finds itself increasingly dependent upon the suburban communities, which provide space for the growing population and the expansion of industry, commerce and transportation. In the 1950's, for the first time in its history, the city proper began to decline in population, but it is expected that this trend will not continue. The increase to some 685,000 by 1980 allowed for in the Metropolitan Plan of 1959 would result from a rise in residential densities within the city.

At first the population increase of the conurbation was absorbed by the nine inner suburbs. Several of these, however, are rapidly filling, and the greatest growth in Metropolitan Toronto is now taking place in the three outer suburbs—Etobicoke, North York and Scarborough. These have a combined population of more than 638,000 and will, in the near future, contain more inhabitants than the city. (*See Figure 15.*)

THE CITY AT MID-CENTURY

The Built-up Area: Its Shape and Size

The shape of Toronto may be compared to that of a half star, the centre being near the harbor, from which rays project to the east, north, northwest and west. Toronto's main street is Yonge, a northward-extending tentacle that from the outset exercised great influence on the shape of the built-up area (p. 64). This street's traditional northward channelling of expansion culminated in 1922 in the annexation of North Toronto (Figure 14). The influence of Yonge Street continues to encourage a rather closely built-up strip lying within a mile to the east and west and extending as far north as Thornhill. The density gradually diminishes northward toward Richmond Hill but can be identified as far north as Aurora and even as far as Newmarket, which is some 30 miles from Lake Ontario.

In the past, Toronto has had a tendency to grow more to the northwest than to the northeast. This may be explained in part by the difficulty of crossing the Don River, to the east, but the historical orientation along Dundas Street is also important. In the 1850's the Grand Trunk Railway built its main line to the northwest, linking the town of Weston to Toronto and running parallel to Weston Road. Later more tracks were laid, and a major junction was developed and industrialization stimulated. At present, the spread to the northwest is striking. It

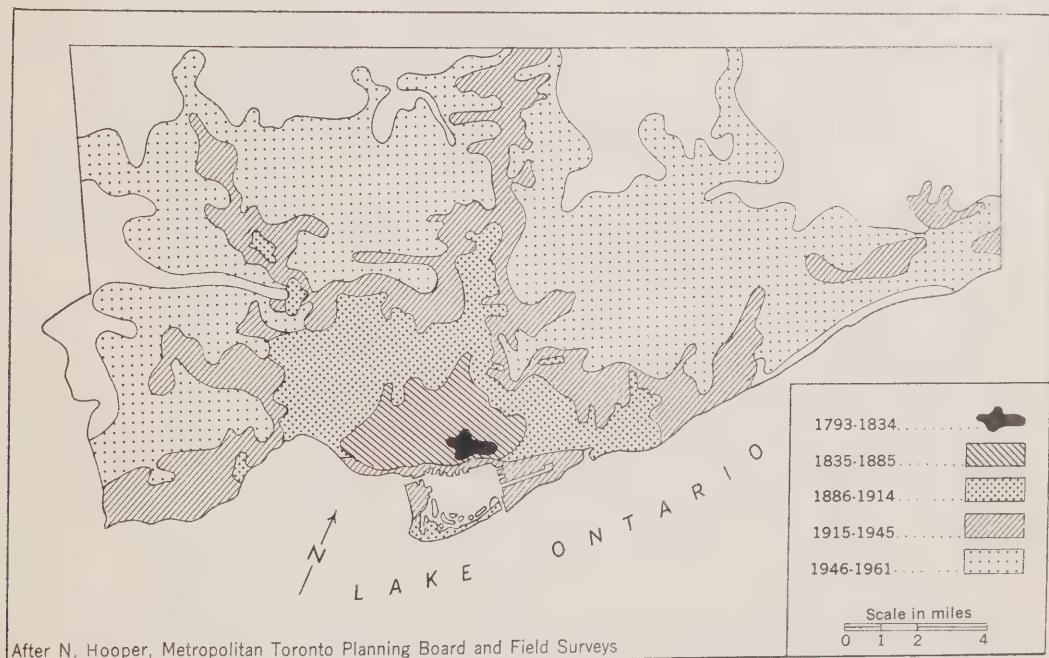


FIGURE 14. Growth of Metropolitan Toronto, 1793-1961.

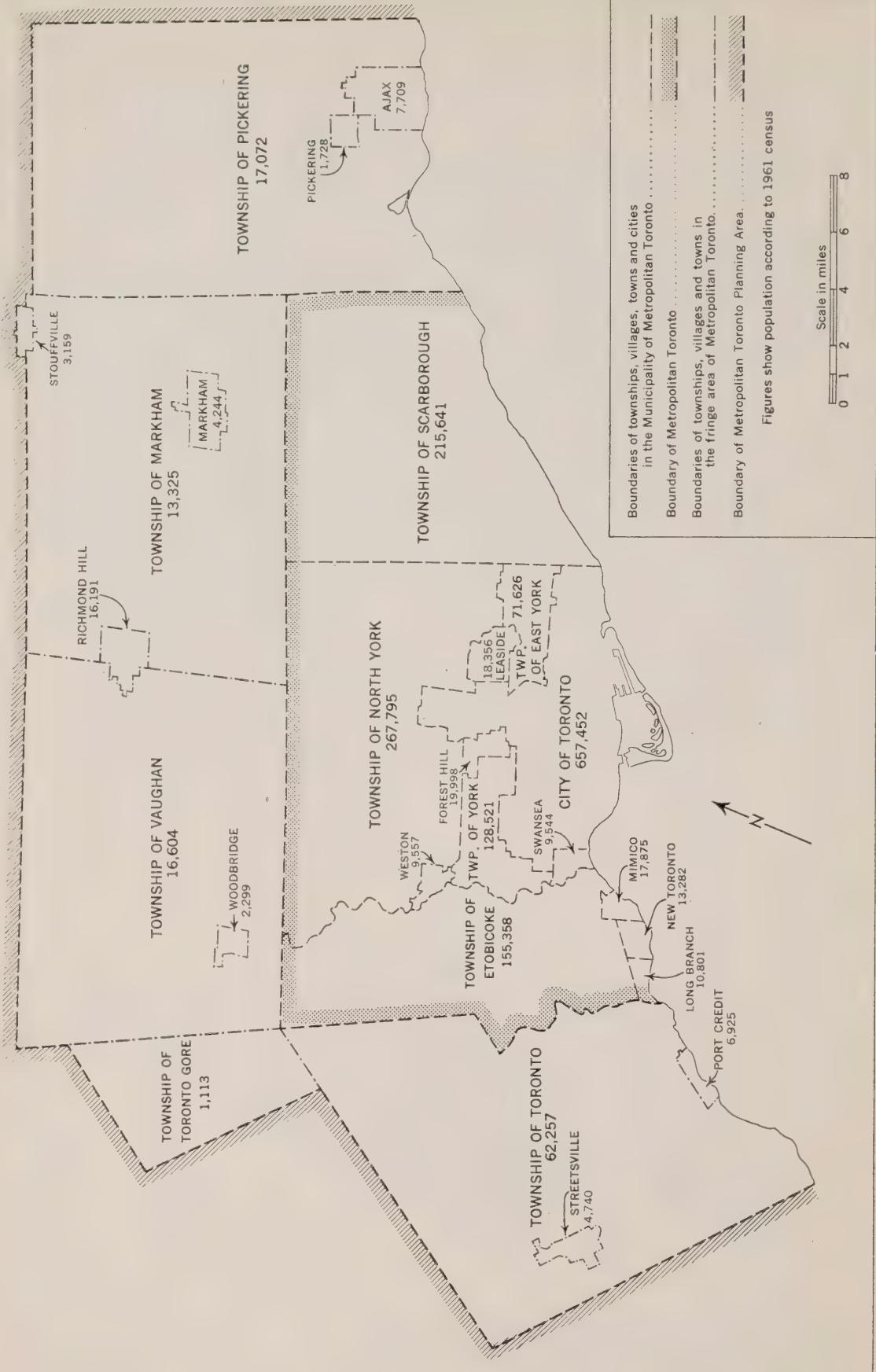


FIGURE 15. The municipality of Metropolitan Toronto and its planning area.

engulfs Toronto's main airport, at Malton, and encroaches upon the old communities of Woodbridge, Brampton and Georgetown. The effect of southwestern Ontario's rich agriculture and close mesh of flourishing urban centres on the orientation of Toronto's growth toward the west is difficult to measure but was undoubtedly a contributing factor.

An important tentacle extends to the west and southwest along the lakeshore toward Hamilton. This transportation route, at first used for railways and later for highways, has increased greatly in importance. Toronto's recent growth has, in fact, embraced Port Credit and Oakville and is rapidly establishing a firm link with the Hamilton conurbation. The Queen Elizabeth Way, Ontario's first modern highway, which is the axis of this belt, was a major factor in its development.

Until recently, little filling in had taken place between the southwesterly and northwesterly tentacles, nor was there much development between the latter and Yonge Street. Here, before 1950, the star shape was well developed, but in the last decade the interstices between the three prongs have witnessed a great deal of subdivision.

Until recently, there was no significant expansion in a northeasterly direction, but early in the twentieth century an important prong began to develop along the lakeshore, following the Kingston Road and railways. After the Second World War, the prong was considerably widened in Scarborough Township through the addition of numerous subdivisions, both residential and industrial. Between this eastern arm and the Yonge Street prong, a wedge of open land extended close to the heart of the city until the early 50's. Both inaccessibility and political factors kept it from being subdivided. The concessions roads north of Bloor Street did not continue eastward across the branches of the Don River; it was not until the 50's that Eglinton Avenue was extended as a major highway making the wedge readily accessible. At the same time, North York confined the provision of public services to land adjacent to Yonge Street, while Scarborough permitted extensive subdivisions on its side of the border that rigidly defined the northward extension of the eastern prong. Soon after 1950, however, the community of Don Mills was developed in the heart of the wedge. In the Metropolitan Plan of 1959 the wedge is visualized as becoming completely built up, with park belts retained along the valleys. This development was proceeding rapidly at the time of writing, having made special headway since 1961, when the southern part of the Don Valley Expressway was completed.

More and more, planning is influencing the shape of the city. In the *Official Plan of the Metropolitan Toronto Planning Area* the possibility of establishing satellite towns is rejected. Instead, the planning authorities visualize a broad urban ribbon running along the shore of Lake Ontario by 1980 and extending far beyond the limits of the Planning Area to include Oshawa and Hamilton. The width of the ribbon is to be determined by the distance over which Lake Ontario can serve economically both as a supplier of water and as a recipient of sewage and storm drainage. The plan is therefore based on the concept of a filling in of the wedges between the tentacles jutting out from the old city, with the exception of a more solidly built-up northward extension to Richmond Hill. It is not clear in what form expansion will take place after 1980—whether the ribbon will simply

be enlarged or whether continued growth will be absorbed in some other form. It may be questionable whether the Metropolitan Plan would provide the most desirable framework for the latter alternative.

The 86,275 acres classified in 1958 as developed or urban land made up 55.9 per cent of the land area of Metropolitan Toronto, which amounts to 154,210 acres.* On the average, 3,100 acres of land have been developed for urban uses each year since 1950. In the postwar period, suburban expansion has added about 50,000 acres of urban land to the built-up metropolitan area, more than doubling the prewar total. In other words, more land was developed for urban uses in the period from 1946 to 1961 than during the entire preceding history of the city. It is estimated that in 1962, the built-up area occupied at least 100,000 acres. The remainder, 54,210 acres, is classified as vacant land and is mainly in estates or farms. By 1980, the Metropolitan Planning Board estimates, 137,680 acres, or almost nine tenths of Metropolitan Toronto, will be fully developed.

The city proper, with only some 500 acres of vacant land available, is almost completely built up. It comprises less than 15 per cent of the land area of Metropolitan Toronto but accounts for 25 per cent of the urban land, most of which has been developed intensively. The land area of the city has been increased, not only by periodic annexation but by reclamation of land from the lake; since 1910, in fact, 1,400 acres have been added to the waterfront. At least 97 per cent of the vacant land in Metropolitan Toronto is found in the three new suburbs of Etobicoke, North York and Scarborough.

The shape of the built-up area and its internal differentiation are in part the result of forces stemming from the nineteenth century, particularly from the pattern of roads and railways. Soon after the turn of the century, new forces began to play a part in changing the city's appearance. First, there was the slow re-emergence of interest in planning, which culminated in the establishment of planning boards and the creation of a new form of local government. Secondly, there was the revolution in transportation, which made the automobile almost a tyrannic force in the morphology of the city.

The Rise of Planning

From the nineteenth century the authorities inherited a passive attitude to the problems of the growing city. They hesitated to act decisively and took measures only after a situation had become unbearable. The problems of water supply and sanitation in the latter part of the 1800's were cases in point (Chapter IV). Gradually, attempts were made to foresee and possibly to anticipate undesirable situations. The authorities began to deal much more actively with the entire problem of land-use organization and, little by little, made long-term plans for the improvement and further expansion of the city. They acted at an earlier phase in a development and tried to forestall the need for costly remedial

*These data are based on the gross acreage and are derived from the Official Plan (*op. cit.*), Table 40 (p. 127).

measures. Thus the attitude toward the city's problems changed completely from the laissez faire philosophy of the previous century. The path of planning, however, has not been easy.

The fundamental problem in the development of local planning has been to make it an integral part of democratic government without weakening the effectiveness of the planning process itself. It cannot be said that an entirely satisfactory solution has been found. The elected representatives often tended to shy away from assuming full responsibility in planning and were, for political reasons, inclined to ignore the planner's advice. Planning has nevertheless become far-reaching in its effects, and a knowledge of its development and scope is essential for an understanding of the mid-twentieth-century city.

The first attempts at planning were almost exclusively aimed at beautifying the city by trying to discard some of the more ugly aspects of the nineteenth-century legacy. This phase lasted till the end of the 1920's and culminated in the University Avenue project. In 1897, the Toronto Guild of Civic Art (later called the Civic Guild) was formed. After 1901, this organization became the "formative and directing influence in securing better planning and beautification of the City."^{*} The community and its leading citizens began to realize that in comparison with other major cities Toronto seriously lacked boulevards, parkways, parks and playgrounds. It also became apparent that the existing grid pattern was not capable of handling a rapidly increasing volume of traffic. The need for a civic centre was also noted.

The work of the Civic Guild led City Council early in 1909 to appoint a civic improvement committee. The committee and its successors continued to concentrate on traffic problems and in doing so laid the groundwork for, among other things, the building of a large viaduct across the Don Valley from Bloor Street and the extension of Bay Street. To enhance the beauty of the city and give personality to its heart, the committee proposed the creation of a civic centre between the city hall of 1899 and Osgoode Hall. From the centre, a new, broad avenue would lead through the middle of the long blocks between Bay and York streets to the new Union Station (p. 61). By 1947 the square had been acquired, and became the site of the new city hall now under construction.

The Civic Improvement Committee was also instrumental in obtaining the passage of the City and Suburbs Plans Act of 1912. Now, for the first time, the city was granted control over the subdivision of land and the layout of new streets outside the city limits. The committee also obtained an amendment to the Municipal Act to permit the larger municipalities to postpone for a certain period the actual widening of a street without losing the right to protect the proposed widening against the erection of buildings beyond the future street line.

The Toronto Board of Trade, as well, took a lively interest in the city's planning problems, especially traffic congestion and harbor development. In 1914, at its request, the City Council appointed a citizens' boulevard committee.[†] For

^{*}City of Toronto Planning Board. *History of Planning Organization in Toronto*, 1959.

[†]Toronto Board of Trade. *Yearbook*, 1915.

the time being, however, the passive attitude of City Council toward planning problems continued, Council displaying little initiative.

During the First World War and most of the 1920's, the development of planning as a tool of civil government was largely at a standstill. From 1912 to 1930, all planning in the city was entrusted to the Surveyor's Office, a branch of the Assessment Department. Emphasis was on the improvement and extension of the street system. In 1924, the Board of Trade urged City Council to appoint a planning commission, but to no avail. Gradually, however, public demand increased, and in 1929 the Advisory City Planning Commission was constituted.* The commission submitted a report containing recommendations for the improvement of the Central Business District, concentrating mainly on traffic problems and the extension of University Avenue. The plan was accepted by the heads of the different civil departments and a scheme for financing its implementation was drawn up, but all came to naught with the rejection of the plan by the Toronto electorate. That the outcome signalled the end of the emphasis on city beautification was clearly shown in a new report issued by the Advisory City Planning Committee in 1930. It aimed at creating main traffic arteries by linking disconnected roads in the existing pattern. The idea of diagonals was abandoned, except for short stretches. No attempt was made "to create vistas or sites for the display of architectural features which are characteristic of cities aiming at aesthetic pre-eminence."†

During the 1930's the development of planning in the city once more came more or less to a standstill. In 1930, the Surveyor's Office was expanded and became the Department of City Planning and Surveying and continued as such until 1954. Planning was almost entirely concerned with street and traffic problems.

In 1934, however, deteriorating housing conditions led to the creation of the Lieutenant Governor's Committee on Housing Conditions in Toronto. The report noted the inadequacies of city planning and recommended, among other things, the immediate establishment of a city planning commission, but very few of the recommendations were implemented.‡

It was not until early in the Second World War, when postwar reconstruction and expansion were being considered, that planning came once again to the fore. The Board of Trade submitted a proposal to the city requesting the formation of a city planning board. This time, City Council unanimously endorsed the recommendations of the Board of Trade, and on June 1, 1942, the Toronto City Planning Board was appointed. Yet Council's enthusiasm was short-lived. At the end of 1943, the Planning Board presented the diagrammatic outline of a master plan to Council. The plan was approved half a year later, "it being understood that the said approval shall not be construed as committing the city to proceed with the plan or any particular part thereof without the approval of council,

*How the City Plan Came About. Board of Trade Journal, December 1929.

†Report of the Advisory City Planning Committee. Toronto, 1930.

‡Report of the Lieutenant-Governor's Committee on Housing Conditions in Toronto ("The Bruce Report"), 1934.

which is hereby expressly reserved.”* The board replied: “The City Planning Board respectfully suggests that approval couched in such guarded terms has little or no significance and that if effective progress is to be made with planning in Toronto, the city must be prepared now to reach a decision on the major features of the plan. With the passage of every day and the growth of the suburbs, the difficulties of planning the city and its environs are bound to increase.”†

Although the Planning Board of 1942 was only an advisory body, its work had far-reaching effects on the development of the city in the late 40's and in the 50's. Its report was the first comprehensive plan for the city in that it dealt with all aspects of land use, from greenbelts to a civic square, from the problem of substandard housing to the flight of industries to the suburbs. The board also contributed greatly to the development of the concept of planning both in the city and in the province. For example, in dealing with the greenbelt plans and policies for industrial land use, it became increasingly aware of the need for co-ordination of the municipalities in the metropolitan area and the creation of a regional planning authority. Toward this end, the city applied to the provincial government in 1944 for legislation to implement all the recommendations of the Planning Board, including the proposal of a grant of power to set up a joint planning authority for a group of two or more municipalities. The preparation of new planning legislation, however, caused delay. When, in 1947, the necessary authority was obtained, the City of Toronto and 12 suburban municipalities, in all some 250 square miles, were defined as a planning area under the jurisdiction of the Toronto and Suburban Planning Board. The city proper was defined as a subsidiary planning area and had its own board. To ensure proper co-ordination, five members of the City of Toronto Planning Board were appointed as city representatives on the Toronto and Suburban Planning Board. Shortly afterwards, the Toronto and Suburban Planning Board was reconstituted as the Toronto and York Planning Board, the planning area having been extended to include the entire county.

By 1947, of the 13 municipalities under the jurisdiction of the then existing Toronto and Suburban Planning Board, only three—North York, Etobicoke and the City of Toronto—had appointed planning boards. Three of the remaining municipalities had only planning committees, and the remaining seven had nothing. This clearly illustrates to what extent the Toronto conurbation, which in 1951 reached a population of more than 1.1 million, had grown under a system of minimum government planning.

The planning endeavors of the late 40's culminated in 1949 in the preparation of an official plan. In it, many of the projects found in earlier reports appeared again or were given new formulation. To elaborate on the general land-use regulations of the new plan, a comprehensive zoning by-law was prepared. Quoting this proposed by-law in its 1952 report, the City of Toronto Planning Board stated: “It needs no argument to prove that selfish or speculative interests in indi-

*City of Toronto Planning Board. Annual Report, 1944.

†*Ibid.*

vidual parcels of land can destroy the amenities of residential areas and produce an heterogeneous mixture of conflicting uses that not only depresses land values and assessments, but also paves the way for the destruction of the home. Security is the right of every property owner against the devaluating effect of some use of adjoining property that is inconsistent with the character of the area.”* The nineteenth-century mode of city building and the second phase in the morphological growth of the city definitely had come to an end. In the meantime, however, new problems had arisen and stood in the way of the implementation of the latest plan. A harmonious development not only of the city but of the entire metropolitan area was still beyond reach.

The Municipality of Metropolitan Toronto

Despite the fact that new subdivisions had to be approved by the provincial authorities, the expansion of the city beyond its boundaries had not resulted in harmonious and well-balanced development. This was due in part to the rapid postwar increase in population. The total population of the suburban municipalities that would later be joined in a federation with the city amounted in 1921 to some 89,550, in 1931 to 178,150, in 1941 to 408,460 and in 1951 to 850,175. In the last-mentioned year almost 37 per cent of the metropolitan population lived outside the city, yet local councils frequently failed to act upon the recommendations laid before them by the planners and other experts.

Through lack of funds, several municipalities were unable to make the necessary investments in public services. The Toronto and Suburban Planning Board stated in its 1947 report that taxes based on a six-room-house assessment could not meet the financing of public services, including education, unless additional revenue were obtained from commerce and industry. This was especially true for East York, North York and Scarborough. The suburban municipalities therefore attempted to promote industrial development by laying out properly serviced industrial areas, but not all municipalities succeeded in balancing their assessments in this manner.

Most serious were the problems connected with water supply and sewerage facilities. The city tended to act as barrier between Lake Ontario and some of the inland municipalities, and the lack of proper sewerage systems thus caused had become a menace to public health. Dwellings had been created on small lots where the soil characteristics were entirely unsuitable for septic-tank disposal systems. When local municipalities did build sewage-treatment plants, they tended to locate them on the Don and Humber rivers, into which the effluents of the overloaded installations were discharged. These, together with other forms of pollution, had already made the costs of cleaning up the lower courses of these streams prohibitive (Gore and Storrie).

Some suburbs relied heavily on wells that produced water of inferior quality, the only satisfactory source of water for inland municipalities being Lake Ontario. Naturally, this meant that the mains would have to pass through the City of Toronto. By the late 40's serious water shortages had developed, and enforced

*City of Toronto Planning Board. Annual Report, 1952.

curtailment of the use of water became a normal aspect of suburban living. The situation in the Township of North York became especially critical, but through lack of foresight even Etobicoke Township, which fronts on Lake Ontario, suffered almost as badly.

The highway network and public transportation in the metropolitan area were poorly integrated. In 1949, fully 30 per cent of the metropolitan population found itself outside the limits of the universal fare system, and co-ordination of transportation services was most urgently needed. A plan for the preservation of open space in the rapidly expanding built-up area could not be implemented because of lack of co-operation among the different municipalities concerned. Thus chaos was rapidly developing, and in its 1949 report the Toronto and York Planning Board pointed out the underlying causes: ". . . constructive progress is in every case barred by the difficulties of securing municipal co-operation in the development and extension of public services. . . ." It referred to "twelve suburban municipalities all exercising their own local autonomy; all seeking to provide a local development geared to a local pattern; all seeking to finance their individual requirements as economically as possible and all to a greater or lesser degree relatively uninterested in a comprehensive solution of problems that are common to the whole area." Consequently, it is not surprising that one of the solutions suggested by the board was a unification of groups of municipalities. The recommendations of the 1949 report were endorsed by the City Council, and an application was made for amalgamation.

In 1953, the Provincial Legislature passed an act providing for the federation of Toronto and its 12 suburban municipalities. The new municipality, called Metropolitan Toronto, covers 239.7 square miles. The federating municipalities retained their autonomy in local matters and received representation on the Metropolitan Council, which has 25 members: a chairman, 12 City of Toronto representatives and one member for each of the 12 suburban municipalities. The Metropolitan Corporation has become responsible for assessment, water supply, sewage disposal, air-pollution control, certain roads and public transportation, education, health and welfare, the administration of justice, housing, licensing, police, planning, parks, civil defence and finances. It collects the money for its budget from the 13 municipalities by means of a metropolitan tax levied on the assessment of each. The corporation also issues the debentures required for the permanent financing of constituent municipalities (Grumm).

The Metropolitan Toronto Planning Area comprises Metropolitan Toronto and 13 adjacent municipalities, the whole covering some 720 square miles (Figure 15). The local planning boards have retained the right to formulate or amend their own official plans, provided approval is obtained from the Metropolitan Planning Board and the provincial government. In 1959 the Metropolitan Toronto Planning Board published its *Official Plan of the Metropolitan Toronto Planning Area*.

Thus a new form of government was created, partly to meet planning problems the solution of which lay beyond the reach of the individual municipality. Soon improvements began to take effect, some of which, such as expressways

and housing projects, made sweeping changes in the cultural landscape. Many features in the morphology of the city nevertheless continue to reflect the lack of planning that prevailed during most of its history.

Transportation

Transportation facilities in Metropolitan Toronto at mid-century are in a state of rapid transition. As in all North American cities, the enormous increase in automobile traffic has necessitated the widening of existing streets and the building of controlled-access highways and expressways. Furthermore, the growing importance of freight traffic in the economy of Metropolitan Toronto has brought about the building of large terminals for transport trucks and new facilities for railways. Finally the rise of large-scale commercial aviation has made necessary the appropriation of a great deal of level land in the northwestern part of the city area for a major airport.

Such is the development of transportation in the metropolitan area. It has been subjected to a great deal of planning and continues to undergo profound changes in all its aspects. Transportation in turn has exerted a profound influence on other land uses, especially those arising from housing, manufacturing and commerce.

Streets and Highways

Soon after the turn of the century, the city began to face problems of traffic congestion and, as already noted, city beautification and traffic improvement went hand in hand in the planning attempts of that time. The city had inherited from the nineteenth century a broad grid of cross-town arteries at 1½-mile intervals in accordance with the former concession and side roads. From the earliest time, however, a small number of roads did not conform to the official survey. Vaughan Road, Davenport Road, Weston Road, Kingston Road and other arteries irregularly traverse the survey grid. They were used to reach the Town of York before the survey roads had been opened and improved. Some probably follow ancient Indian trails. Later, streets in subdivisions within the grid of concession and side roads were joined to form additional cross-town arteries. Examples are Dundas Street, College Street, Bay Street, Mount Pleasant Road and Duplex Avenue. An important step forward was the passing of the City and Suburbs Plans Act of 1912 which enabled the city to lay out new streets up to 5 miles outside the city limits and to widen concession and side roads to 86 feet in advance of subdivision projects.

From the beginning of the century, plans were also made to improve the grid pattern by building a system of boulevards. In 1901, it was suggested that Fleet Street be extended (p. 71) as far as Bathurst and ultimately to High Park in the form of a boulevard along the shore of the lake.* The idea of a lakefront boulevard system gained momentum, and over the years it grew more inclusive. Thus it was proposed that a boulevard run from the mouth of the Humber via a lift bridge to Toronto Island and eastward as far as the Woodbine race track. Other systems were suggested by the Civic Guild, the Civic Improvement

*City Engineer. Report, 1901.

Committee and the Citizens' Boulevard Committee. The Guild proposed the building of two diagonal traffic arteries extending northeast and northwest from the centre of the city.* The Boulevard Committee submitted a plan for a 32-mile boulevard system.† Of all these plans, the present-day city has inherited only a few fragments, the most important being University Avenue.

The wide section of University Avenue north of Queen Street had come to the city fortuitously (p. 65). In 1928, the city received from the Provincial Legislature authority to extend the avenue in a southern or southeasterly direction, and a commission was appointed to deal with the matter. In its report, the commission proposed the extension of University Avenue as part of an over-all plan for the improvement of the street pattern in the entire downtown area.‡ The present uninspiring southward continuation of this avenue was by no means the conception of the commission (Plates V A and IX). A continuation directly southward had become impossible because of the railway barrier along the waterfront and the yard facilities just west of lower Simcoe Street. Moreover, it was felt that a direct southward continuation would make the avenue too marginal to the downtown area and would therefore fail to attract monumental buildings. Instead, the commission proposed an extension to a large circle at Richmond Street, from which University Avenue was to project southeast to Front Street as at present, while other main arteries would lead to the southwest and east, and Richmond Street would be widened. York Street was to be made a main north-south artery curving into Bay Street north of Queen; and a new monumental avenue was to link the proposed civic centre with the new Union Station, as was planned by the Civic Improvement Committee before the First World War. Finally, the commission also proposed a widening of Queen Street to 100 feet from its historic wider section near Spadina (p. 65) to Sherbourne Street.

In this system of boulevards and major traffic arteries, which recalled some of the great cities of the world, University Avenue was intended to become the most inspiring of all. To ensure its success, the commission proposed that all buildings along it should be subject to architectural and aesthetic restrictions. Not since Simcoe's prescriptions for the architecture of the Old Town and the laying out of squares in the New Town had such a policy been formulated.

In the 30's attention turned rapidly from beautification and monumental boulevards to the hard problem of finding a solution for the ever increasing traffic congestion. At present, more than 500,000 motor vehicles of all types are registered in Metropolitan Toronto, the number having quadrupled in the last 15 years. The ratio of one motor vehicle to every 2.9 persons is the third highest among large North American cities (those with a population of more than 1 million), being exceeded only by Los Angeles and Detroit. Another indicator of the tremendous volume of traffic on Toronto streets is that fewer than 3 per cent of all metropolitan residents walk to work. More than 55

*Toronto Civic Guild of Art. Report on a Comprehensive Plan for Systematic Civic Improvements in Toronto, 1909.

†Toronto Board of Trade. Yearbook, 1915.

‡Report of the Advisory City Planning Commission with Recommendations for the Improvement of the Central Business Section of the City of Toronto. Toronto, 1929.



PLATE IX. University Avenue running north to the provincial Parliament Buildings in Queen's Park. The boulevard ends a short distance south of Queen Street, at Richmond Street, where it narrows and is deflected slightly to the east. The railway terminal facilities appear in the lower left corner. Construction on the new city hall and civic centre can be seen at the right centre.

per cent of all automobile trips and about 65 per cent of all transit trips are work trips.* Traffic congestion threatened to strangulate the city, especially downtown, where the great majority of streets south of St. Clair Avenue originally were 66 feet or less in width. For 1958-59 it was estimated that between the hours of 6.30 a.m. and 11.30 p.m. 378,000 vehicles crossed either into or out of the area bounded by Bloor Street on the north, Bathurst on the west, the Don River on the east and the lakeshore on the south. These vehicles were estimated to carry about three quarters of a million passengers a day.† A large-scale program of street-widening, rapid-transit construction and expressway-building became an absolute necessity. The new municipality

*Metropolitan Toronto Planning Board. *Official Plan of the Metropolitan Toronto Planning Area*, p. 151. Toronto, 1959.

†Metropolitan Toronto Planning Board. *Central Toronto Housing Study*, 1960, p. 8.

of Metropolitan Toronto and an improved planning organization have for the first time created a framework in which a well-integrated transportation system can be built for the entire metropolitan area.

Until recently, the only through highway in Toronto was Lake Shore Boulevard, which had emerged from the reorganization of the waterfront and had been built on reclaimed land. It linked the Queen Elizabeth Way, at the western city limit, with Highway 2 (the Kingston Road), in the east end. Even so, access to this thoroughfare was not controlled and its traverse of an amusement park in the west and a harbor zone in the downtown area reduced its usefulness as a through-traffic artery.

At present, an extensive plan for expressways proposed in broad outline in 1943* is being implemented to facilitate the movement of automobiles and trucks. The broad scheme is to enclose Metropolitan Toronto within a triangle of expressways, two of which—Highway 401 to the north and Highway 27 to the west—have already been constructed. The F. G. Gardiner Expressway, in part an elevated structure, is at present being built along the lakeshore and will complete the triangle.

A large number of intersections feed traffic from these three expressways into the cross-town arteries. Calculated on an annual basis, the volume of traffic carried by sections of Highway 401 and the lakeshore system averages more than 85,000 vehicles a day.

Within the triangle, the cross-town arteries will be supplemented by a system of widened streets and expressways giving access to the centre of the city. One of these, the Don Valley Parkway, is under construction, and the Spadina Expressway, which will run in a northwesterly direction, was recently authorized. These two highways, combined with the Gardiner Expressway and another proposed for construction a few blocks south of the Iroquois shoreline, will form a ring around the inner city. The expressway system, however, extensive though it is, is not expected to meet all transportation requirements and is being supplemented with a network of streetcar lines, bus routes and subways.

Public Transportation

The first franchise to operate streetcars in the city was granted in 1861. When, in 1891, the franchise expired, the city took over the system, but shortly afterwards a 30-year franchise was granted to another company. A confused situation arose when the company refused, and could not be compelled to extend its single-fare service to districts outside the city limits of 1891. There was a consequent tendency to restrict commercial and industrial expansion to the older parts of the city and thus increase crowding in the built-up area. Additional transportation systems were formed by private in-

*City of Toronto Planning Board. Annual Report, 1943.

terests to provide service outside these limits, and by 1920 Toronto had nine public transportation systems, each with its own fare structure. That year the city acquired the systems and created the Toronto Transportation Commission.*

In the late 40's, in a situation similar to that of some 30 years earlier, the T.T.C. was unable to invest public funds in the building of suburban extensions and limited itself to serving only Toronto proper. It operated a few suburban routes on behalf of the municipality concerned, which assumed responsibility for financial deficits. The vacuum left by the T.T.C. was filled by some 32 separate private systems, each having its own fare structure without transfer privileges. Co-ordination of routes and a well-integrated transportation system became a dire necessity. With the formation of the Municipality of Metropolitan Toronto, a single body once more became responsible for public transit in the entire conurbation.

Toronto's public transportation faces problems similar to those affecting all systems in North America. The more it is needed, the less it seems to be used, the public preferring the private automobile whenever possible, whether or not its use is economical. In recent years the number of transit riders has steadily declined. In 1954, the Toronto Transportation Commission carried 320 million passengers; in 1961, it carried only 267 million.† These statistics are disappointing, especially when viewed against the background of over-all population growth, and the system's increased efficiency and expansion into a metropolis-wide network. A major problem is the maintenance of adequate service in suburban districts where population densities are low. The transit trips are highly concentrated during the morning and late-afternoon rush hours, when 70 per cent of the day's transit riders are carried.‡

The building of the subway under Yonge Street reflected the importance of that thoroughfare to the Central Business District and its historical significance in the northward extension of the city. The subway, completed in 1954, largely solved the problem of transporting people from the north into the Central Business District, thus not only saving the district from further deterioration but reinforcing diverse functions in the downtown area. Paradoxically, the subway also stimulated some decentralization from the downtown area by favoring expansion of office-building near its stations (Plate X).

The Yonge Street subway runs $4\frac{1}{2}$ miles on two tracks, partly underground and partly in an open cut, from Union Station on Front Street to the Eglinton Avenue terminal. It carries about 70 million passengers a year and, on the average, 32,000 move in one direction during each rush hour. An 8-mile extension via Bloor Street and Danforth Avenue is under construction, and a 2-mile line under

*Toronto Transportation Commission. *Wheels of Progress* (a story of the development of Toronto and its public transportation service). Toronto, 1953.

†Toronto Transit Commission. 1961 Facts and Figures, summer, 1962. More recent data suggest that there has been a small increase since 1962.

‡Official Plan (*op. cit.*), p. 152.

University Avenue has been completed; other lines may be built to follow Queen Street, the Spadina Expressway and North Yonge Street. Public transportation may be further expanded by a more intensive use of existing railway facilities.

The Railways

The metropolitan railway pattern, established in the nineteenth century, is concentrated for the most part in the downtown area near the waterfront. It is here that significant changes have taken place since the early 1900's.

Soon after the city began to improve its deficient sewer and water systems, it was faced with traffic congestion along the waterfront, where access to the harbor led across a network of tracks. Through lack of foresight and in the face of many warnings, the easiest way had been followed, and in the long run it had proved to be detrimental, both financially and aesthetically.

In 1913, the railway companies agreed to build the Toronto Terminals Railway Viaduct, but the First World War and the absorption of the Grand Trunk by the Canadian National Railways caused new delays, and construction did not begin in earnest until after a final agreement, reached in 1924. The viaduct, opened in January 1930, allowed unimpeded road access to the waterfront through seven new underpasses lying between the Don River and Spadina Avenue. Duplication of passenger terminals had come to an end in 1927 with the opening of the new Union Station.

The main freight and passenger terminals are in the downtown area, where the railway companies hold large tracts of land. Marshalling yards, freight sheds and small passenger stations are situated in other parts of the city, most of them dating from the period before the First World War. Recently, a few spur lines and some sidings have been built, the purpose being to serve new suburban industrial districts. As the metropolitan area continued to grow, the need arose for large new classification yards on the periphery of the conurbation. The construction of extensive marshalling yards in Vaughan Township, 15 miles north of the waterfront, for the Canadian National and near Agincourt, in Scarborough, for the Canadian Pacific reflects the diminishing importance of the downtown yards. It might indeed be desirable for the city to reappraise its link with the waterfront, since the need for the downtown yards may cease to exist. Would it not be possible to fulfill the aspirations of the founders by making long-term plans to open the city once more to the harbor and thus give new dimensions to a confined and crowded Central Business District? The reduction of freight-train traffic passing through may make the Union Station area more accessible to commuter trains and thus intensify long-distance commuting by rail.

This kind of travel had a promising start in the Toronto area. By the early 20's, the city had become the hub of electric railways radiating in several directions and influenced the shape of the conurbation. One line ran northward some 60 miles via Newmarket to Jacksons Point and Sutton, giving Toronto citizens easy access to the recreational resources of Lake Simcoe. A 45-mile line ran to Guelph and 16-mile spurs extended eastward and westward along the shores of Lake Ontario. The "radials" could not, however, compete with the rapidly

developing road traffic and were gradually abandoned, with the result that commuters in the Toronto area became exclusively dependent upon the automobile. At present only a few trains, running to such centres as Oakville, Agincourt and Weston, provide commuter service, although tracks and stations for more extensive operations may become available.

Air Traffic

Malton Airport, operated by the federal Department of Transport, is the principal civilian airport. It is accessible not only to the people of Toronto but also, by excellent highways, to an additional three quarters of a million (including Metropolitan Hamilton's 395,000 and Metropolitan Kitchener's 155,000) living within 50 miles to the southwest. It covers 3,000 acres of level terrain on the Peel Plain, about 18 miles northwest of the city centre. The airport is a major focal point of North American air traffic but has only a small number of direct flights to Europe and Latin America. On the other hand, the location of a first-class modern airport close to a densely built-up area is bound to create problems. Noise, for instance, threatens to blanket extensive residential districts in the western part of the metropolitan area.

The De Haviland Airport in the north-central part of Metropolitan Toronto is used for military purposes.

The third airport is on the Island, close to the downtown area. Operated by the Toronto Harbor Commission, it serves as a terminal for private planes. Some local lines provide service from this terminal to other centres in southwestern Ontario. At one time it was planned that the Island Airport, ideally located close to the centre, should be Toronto's main airport, but soon it proved too small for that purpose.

The Residential Function

The pattern of residential districts in Metropolitan Toronto is similar to that of other large North American cities. Around an inner core with only a very small number of permanent residents extends a zone of housing built largely in the nineteenth century and having densities varying from 101 to more than 150 persons per net residential acre.* Beyond this zone, net residential densities decrease to 16 persons per acre along the fringes of the built-up area. In 1958, almost 60 per cent of the developed area of Metropolitan Toronto, or 51,660 acres, was in residential use.† Residential land is continually being converted to other uses, mainly for commercial, industrial or transportation purposes. Moreover, the nature of many residential areas changes because of the impact of the automobile, problems of deterioration, the emergence of ethnic concentrations or the erection of apartment buildings.

The rapid increase in the use of the automobile early in the twentieth century introduced an entirely new factor into the residential function of the city. It brought a disturbance of the balance, which so far has not been restored.

*Official Plan (*op. cit.*); Plate 26.

†Official Plan (*op. cit.*), Table 42.

Many of the older residential districts in particular were adversely affected. The extensive use of the grid pattern meant that every street became a potential traffic artery (Stanislawski). Indeed, many a quiet residential street has suffered such a fate. Besides, most of the land in Metropolitan Toronto has been subdivided with the aim of placing the maximum number of houses on the land available. Garage facilities are consequently insufficient in many areas, no space being available for improvements. These areas also suffer from a shortage of parkland.

Rapid changes in technology, architectural styling and the standard of living have tended to accelerate the obsolescence of housing, especially in the older parts of the city. Moreover, around the expanding Central Business District and along some of the traffic arteries, rising land values encourage multiple occupancy and poor maintenance, in particular when the land is expected to be sold in the near future for more intensive development, and so contribute to the deterioration of housing. In 1944, the Planning Board reported that only 16 per cent of the city's residential area could be classified as sound and that 32 per cent was vulnerable, 50 per cent declining, and 2 per cent blighted.* In the declining areas, population density was high, people often being concentrated in houses on narrow lots without drives. Curb parking was extensive, and the streets carried heavy through traffic. Houses and schools tended to be obsolete, and non-conforming uses were intruding.

In recent years, application of the zoning by-laws has tended to stabilize residential areas, especially in the city proper. For planning purposes the city was subdivided into 25 planning districts, after attempts to divide it into neighborhoods proved impracticable.

Ethnic Composition of the Population

Two elements have determined the actual growth of the population—natural increase and immigration. After the Second World War, the latter was the more important. In the early 50's, 27 per cent of the population increase resulted from an excess of births over deaths, while 73 per cent was contributed by immigration. Some 60 per cent of the immigrants were of foreign origin.†

Throughout the nineteenth and well into the present century, Toronto's population was predominantly Anglo-Saxon, with a strong representation of Irish. The city was Anglo-Saxon not only in composition but perhaps even more so in outlook. At the middle of the last century, Toronto saw itself as a "veritable garrison of the Empire: its duty to maintain all that was British in the face of ever-spreading American power in the continental interior" (Careless, p. 26). In its report for 1910 the Board of Trade summed up the ethnic situation as follows: "Toronto is essentially an English-speaking city. It was founded by English, Irish and Scottish people, and for many years there has been a constant influx of British immigrants. A foreign element has been added within the past decade, consisting largely of Russian Jews and Italians, but they are segregated according to their habit. One may walk the business streets for months and not hear a word of any

*City of Toronto Planning Board. Annual Report, 1944.

†Official Plan (*op. cit.*), p. 20.



PLATE X. A residential area undergoing revolutionary changes. The northern terminus of the Yonge Street subway at Eglinton Avenue appears at the lower left. The accessibility to the subway station has encouraged the rapid construction of several new office and apartment buildings. Note the office building under construction on top of the terminal. North of Eglinton Avenue, Yonge Street functions as a neighborhood shopping and service centre. Two secondary schools can be recognized by their large athletic fields.

language other than English." Even as late as 1951, the Census of Canada showed that the British element still accounted for about 70 per cent of the population of the city. Ten years later, however, 46 per cent of the population was of other than British origin.* The largest non-British elements are the Italian, German, French (largely French Canadian), Polish and Ukrainian groups, which are concentrated almost entirely in the city proper, especially in its nineteenth-century parts, where the ethnic composition of some planning districts has changed tremendously. It is estimated that between 1951 and 1960 the Italian group in one district increased from 2.7 to 40 per cent of the population.† In another district, the German element increased from 2.3 to 18 per cent during the same period. In certain parts of the city once solidly British in character, the language

*Dominion Bureau of Statistics, 1961. *Census of National Origins*.

†City of Toronto Planning Board. *A Report on the Ethnic Origins of the Population of Toronto, 1960*.

spoken in the streets, the style of clothing, the stores with their signs and displays of goods are reminiscent of towns and cities in continental Europe. It is to the credit of the city that these profound changes in population make-up have taken place without ethnic strife. Indeed the ethnic rivalries and antagonisms seem to find their strongest expression on the soccer fields!

Apartment Construction

One of the most striking changes that have taken place in Metropolitan Toronto over the last decade is the great increase in the number of apartment buildings. Until the late 1940's, Toronto was predominantly a city of detached and semi-detached homes. Even as late as 1953, fewer than 30,000 units in the metropolitan area, or about 10 per cent of all housing units, were apartments. Early in 1962, the number had risen almost to 94,000, and more than 10,000 units were under construction.* Forty-five per cent of all apartment units have been erected since 1955 and the increase continues unabated. Between 1958 and 1961, the ratio of apartments in Metropolitan Toronto rose from 39 to 51 units per 1,000 persons, the number of units increasing faster than the population.

In 1958, one in every 12 residents of the metropolitan area lived in an apartment; in 1961 the ratio was one in every 10. In the city proper, surprisingly, the number of units per 1,000 of population is lower than in 10 of the 12 suburban municipalities. Estimated on this basis, the proportion of apartment dwellers is greatest in a zone between 5 and 8 miles from the centre of the city (Queen and Yonge streets). In this zone, 14.8 per cent of the population live in apartments. By contrast, 10.3 per cent of the population in each of the two zones that extend from zero to 2 miles and from 2 to 5 miles from the centre live in apartments. Almost half, 49 per cent, of all apartment dwellers in Metropolitan Toronto live beyond the 5-mile radius, and the *Apartment Survey* mentioned in the footnote refers justifiably to the 5- to 8-mile zone as the "apartment belt" (Figure 16).

The apartment units are found throughout the built-up area, but clusters can be recognized, and they contain 78 per cent of the total. The city and North York have respectively 40 and 19 per cent of all units in Metropolitan Toronto, and in the distribution pattern the 5- to 8-mile zone stands out with about 40 per cent of the metropolitan total.

Apartment-building characteristics and apartment living tend to vary with distance from the centre of the city. The units increase in size toward the fringes of the built-up area, where a greater number are found with two or three bedrooms. The number of bachelor apartments decreases from almost 45 per cent

*Metropolitan Toronto Planning Board. Vacancy Rates in Apartments. Toronto, February 1962. Apartment Survey, 1961. Toronto, June 1962. The latter is the source of the data given on apartments. It is based on an analysis of buildings with six or more units and does not include public housing or limited-dividend accommodation. It covers altogether 8,700 units.

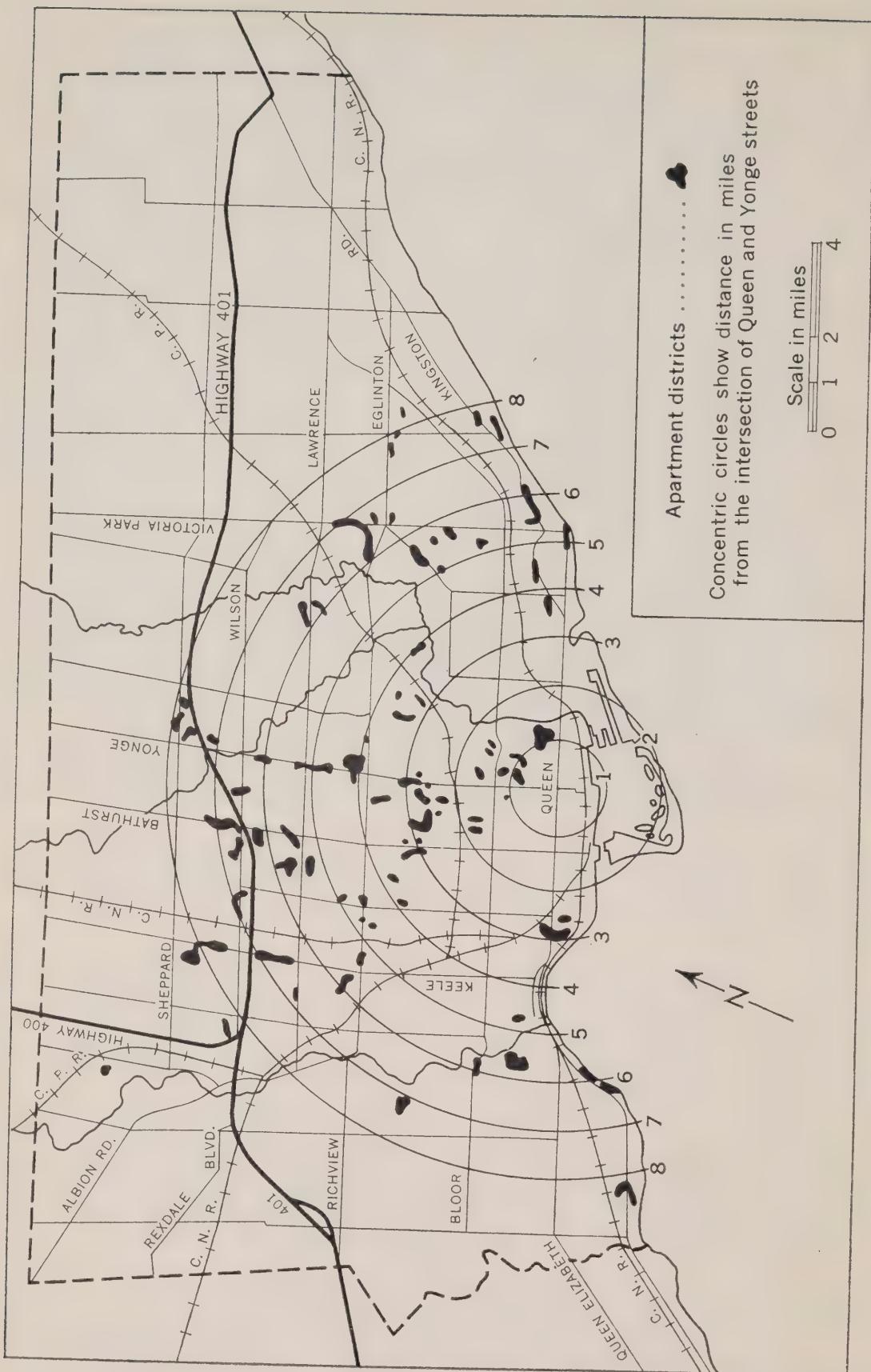


FIGURE 16. Districts in Metropolitan Toronto in which apartments are predominant, about 1960.



FIGURE 17. Distribution of the 1960 population of Metropolitan Toronto (permission Toronto Transit Commission).

of all units in the 1-mile zone to 15.4 per cent in the 4- to 5-mile zone. In the apartment belt, bachelor apartments account for 6.4 per cent of all units, one-bedroom units for 50.3 per cent and two-bedroom units for 41.5 per cent.

Apartment living seems to be favored by families without children and by non-family groups. In Metropolitan Toronto as a whole, 77.3 per cent of all households have no children, and apartment occupancy averages 2.19 persons per unit, or about half that of other accommodations (4.32). Within 5 miles of the city centre, about 90 per cent of all households consist of childless families or non-family groups.

In conclusion, it should be noted that the widely assumed identification of apartment living with residence close to the downtown area does not hold true for Metropolitan Toronto. The apartment belt in the zone between 5 and 8 miles from the city centre is a striking characteristic of the built-up area. Only beyond the 8-mile radius does the number of apartment units drop off sharply.

The City Plain

It is desirable in any description of residential areas in Toronto to recognize a rather broad belt on the Iroquois Plain. From Greenwood Avenue in the east to Keele Street and Parkside Drive in the west and northward to the base of the shoreline is found a moderately homogeneous area with densities of at least 45 persons per gross residential acre. All in all, approximately 435,000 persons, or about 29 per cent of the population of Metropolitan Toronto, live there on no more than 9 per cent of the total land surface. This landscape, which derives mainly from the nineteenth century but becomes early twentieth century and of better quality toward the margins, occupies a large part of the city plain. It extends northward on both sides of Yonge Street (Figure 17). Old, closely spaced housing, interspersed with manufacturing plants, warehouses and strings of shops, encircles its inner core. Among the major breaks are such inlying features as Queen's Park, site of the buildings of the provincial government and, to the west, the campus of the University of Toronto, which together occupy some 250 acres. Exhibition Park, on the lakeshore, constitutes another major break in this generally uniform landscape.

The houses vary in detail, but nearly all are two-storey, closely spaced, mostly semi-detached red brick structures. In extensive areas south of Bloor Street, structural quality, including that of both industrial and commercial buildings, varies from fair to poor. North of Bloor Street, similar areas are concentrated in the northwestern part of the city.*

Throughout the residential area, the streets are narrow, with a striking north-south orientation west of the Parliament Buildings and a more pronounced east-west orientation in an area lying east of them and extending beyond the Don River. The general absence of driveways and garages makes the solution of parking problems almost impossible. (See plates V (A and B), XI and XII.)

An inner zone bordered by Bathurst Street on the west, the Don River on the east, Bloor Street on the north and King Street on the south can be set

*City of Toronto Planning Board. Urban Renewal Study, 1956, Plate 4.



PLATE XI.

Closely spaced housing on Gerrard Street East in a neighborhood in East Toronto.



PLATE XII. Cowan Avenue, in the Parkdale district of Toronto, may be considered typical of many narrow tree-lined streets on the Iroquois Plain.



PLATE XIII.

Late-nineteenth-century mansions on St. George Street have been converted into rooming houses and form part of the campus fringe around the University of Toronto.

apart on the basis of density of population and age of housing. In some sections, the density amounts to more than 80 persons per gross residential acre and in places exceeds 150 per net residential acre. Within this inner zone, at least three quarters of the houses were built before 1900, and about half are more than 70 years old.*

The changes in the ethnic composition, described earlier in this chapter, had great impact on the older parts of Toronto, especially on its western sections. Before 1950, the population of the lake plain was predominantly of British origin. Only a few non-British ethnic elements, mostly Italian, and the Jews as a distinct cultural group had come in; they were settled mainly to the west of the Central Business District. In particular, the area bounded by Spadina Avenue and Bathurst Street became the home of such groups, many of which had arrived in Toronto in the late nineteenth century. There, immigrants of the 1950's found historically based reception areas, from which they spread rapidly. In that decade, the western part of the plain, at least as far west as Lansdowne Avenue, lost most of its residents of British origin, the numbers of this group being thus reduced in many sections to less than 20 per cent.† Surprisingly, the eastern part of the plain retained its British population, at least 75 per cent of it in most sections. The only important infiltration was that of the Ukrainians, French Canadians and Italians.

Among the various groups, the Italians stand out in numbers and influence. They are strongly concentrated on the lake plain, mainly between Bathurst Street and Lansdowne Avenue. Dufferin Street may be considered an axis along which the Italians have spread northward into York and North York townships. A slightly smaller concentration extending northward into East York Township may be recognized in eastern Toronto near Danforth Avenue. Most of the people of German origin live in the western part of the plain, mainly near Bloor Street west of Bathurst Street. Many other groups too numerous to mention have settled in different parts of the lake plain, and have given a special flavor to the streets they inhabit. Kensington Market seems a little transplanted piece of continental Europe.

The main problem faced by the residential areas of the city plain is the poor quality of much of its housing. In nine districts making up the inner part of the city, bounded by Bathurst, Bloor, the Don River and Front Street, the proportion of units in need of major repairs varied in 1951 from 8.7 to 30.8 per cent.‡ Ever since the Bruce Report of 1934 (p. 102), attention has been focussed on the problem of the city's substandard housing and slum conditions. Several other investigations and reports followed, but no redevelopment took place till after the Second World War. Of far-reaching significance was the passing, in 1944, of the National Housing Act. It made federal financial assistance available for slum clearance and redevelopment programs, thus opening the way for public-housing projects. The Regent Park North area, some 42.5 acres bounded by Parliament, Gerrard, River and Dundas streets, was the site of Toronto's first

*Metropolitan Toronto Planning Board. Central Toronto Housing Study, 1960, Table 18.

†Report on Ethnic Origins (*op. cit.*).

‡Central Toronto Housing Study (*op. cit.*), Table 14.

large-scale redevelopment and public housing project (Rose). The area's 765 dwelling units and its sprinkling of industrial and commercial properties covered 36 per cent of the land. Housing and living conditions were extremely poor and constituted a civic burden, as is shown by the following summary, in which a section of Regent Park is compared with a sound area of the same size.

<i>Expenditures</i>	<i>Regent Park</i>	<i>North Toronto</i>
Fire protection.....	\$35,524.50	\$ 9,521.80
Social services.....	\$46,479.56	\$ 2,509.82
Street-cleaning services.....	\$ 5,100.00	\$ 4,900.00
Health service.....	\$ 7,200.00	\$ 3,010.10
Building services.....	\$ 801.00	\$ 116.17
 Total.....	\$95,105.06	\$20,057.89
Revenue taxation received.....	\$31,965.49	\$83,153.52

Regent Park North was completed early in 1957. The new district has nearly 50 per cent more inhabitants than in 1947, when its population was estimated at 3,676 (Rose).* The project contains 29 residential buildings, a central heating plant and an administrative building, leaving about 34 acres as open space. Soon after its completion a new redevelopment program was started adjacent to it, on the other side of Dundas Street. The second area, Regent Park South, displays a greater variety of housing and offers more opportunity for personal deployment than is perhaps available in the austere-looking structures standing on unattractive open spaces in Regent Park North. These two redevelopment projects represent the first steps toward the regeneration of the city plain as a place to live in comfort. (*See Plate XIV.*)

Rosedale

Standing out in striking contrast to the cultural landscape of most of the plain is Rosedale, a primary residential district north of Bloor Street and east of Yonge Street (Plate XV). Comprising the upper part of the lake plain and extending north of the Iroquois shoreline, the district presents a rolling to hilly surface broken by ravines oriented toward the southeast and formerly occupied by small tributaries of the Don River. The eastern border of Rosedale is sharply defined by the Don Valley, through which runs part of the boundary between the City of Toronto and the Township of East York.

Lying close to the centre of the city and traversed by wooded ravines, Rosedale offered attractive residential sites. By 1860 a few winding streets had invaded its southern portion, known as Rose Park. By 1890 only a small area just north of Bloor Street had been developed, but in the years that followed land subdivision went on more rapidly. The pattern of winding streets, which was continued, blended with the terrain and preserved the charm of the natural

*From a statement by the mayor quoted by Rose on page 67 of the work listed under his name in the references at the end of this book.



PLATE XIV. Redevelopment of an old residential district on the edge of the downtown area. The main artery on the right is Dundas Street, with Regent Park North on the right and Regent Park South on the left. In the foreground the Don River, bordered by railway tracks and old industrial establishments.

landscape. It could be argued, of course, that the building of stately homes in this area was a natural extension of Jarvis Street, on which a number of fine mansions had been built after 1860. By 1909, the area south of Park Drive had been fully occupied and by 1914 the Canadian Pacific line was reached. Then, with the building of the Moore Park district in the vicinity of St. Clair Avenue East, and south of Mount Pleasant Cemetery, development spread farther north.

Three problems have faced Rosedale in its efforts to remain a primary residential district—the increase in automobile traffic traversing the area, the conversion of some of the old houses into multiple-dwelling units and the encroachment of apartment buildings. The expansion of Toronto to the north in the 1920's and 30's and, in particular, the development of Leaside in the 30's and early 40's brought automobiles through Rosedale in increasing numbers. Residential streets such as Welland and MacLennan avenues and Glen Road suffered most. To alleviate the traffic problem and protect the residential quality of the district, the city made plans to widen and extend Mount Pleasant Road to Jarvis Street, farther south. The completion of the extension in 1950 greatly changed the flow of traffic, reducing the amount on residential streets to less than that of the 1920's and concentrating nearly all of it on the new partially-controlled-access road.

After the building of Mount Pleasant Road, which for the first time gave Moore Park a direct connection with the downtown area, few changes occurred



PLATE XV. South Rosedale and the Bloor-Jarvis commercial area viewed from the south. At the top of the photo the winding streets and spacious housing of forested South Rosedale stand out clearly. Mount Pleasant Road channels through-going traffic southward and curves into Jarvis Street in the lower right. The office buildings are mainly those of insurance companies. In the upper left corner the Yonge Street subway emerges in a deep cut and forms the western boundary of South Rosedale. In the foreground, new apartment buildings have been erected in old residential areas, while others stand on the edge of Rosedale Ravine.

in either Moore Park or North Rosedale. South Rosedale, however, faced new problems. High taxes and costly repairs made it difficult for many owners to maintain their homes, and it was inevitable that pressure would be exerted to rescind a 1927 by-law restricting the stately nineteenth-century residences of this area to single-family occupancy. Because of the accessibility of the district to the downtown area and its rich endowment of parks and ravine lands, the demand for a change was pressed very strongly. On the eve of the Second World War the by-law was amended to permit the conversion of a house to a maximum of four dwelling units. During the war, when the housing shortage became very serious, the federal government enacted legislation to permit the operation of rooming houses and the sharing of dwellings in spite of the local by-laws. The character of South Rosedale changed rapidly, and multiple occupancy became firmly established.

In response to the changes that had taken place, a 1952 by-law established South Rosedale as a restricted apartment-house district. Many apartments were subsequently built, some of them exceeding the permitted densities by being built down into the slopes of the ravines. With the building of subway stations,

additional pressure was brought to bear to permit lucrative land development to pay for subway construction. It should be noted, on the other hand, that virtually no change took place in the social, occupational or income status of the population. The apartment dwellers tend to resemble to a large extent the home occupants of Rosedale. Yet, many of the latter regretted the changes occurring in the district and were anxious to retain the original status.

The City of Toronto Planning Board has attempted to find a solution for the problems. Moore Park and North Rosedale will continue to be first-class residential areas. In South Rosedale limited apartment development will be permitted in the immediate vicinity of subway stations. In the other sections, single and semi-detached dwellings, duplexes and town houses, but not apartment buildings, will be permitted. Multiple occupancy, long a feature of the area, was given final definition.*

Residential Expansion in the Twentieth Century

Soon after the turn of the century, the built-up area began to spread beyond the boundaries of the present city. Exceptions were North Toronto, Rosedale and East Toronto, where the line of the present boundaries was not reached till after the First World War (Figure 14).

Besides Rosedale, other low-density residential areas close to the downtown area are Swansea, west of High Park, and Forest Hill.

Forest Hill is almost entirely high-class residential, occupying a height of land between two ravines (Plate XVI). The village was incorporated as an independent municipality so that better value might be obtained from local taxation. It has always been the policy of the village to ensure that new developments are in accordance with its high standards. Thus the part north of Eglinton along the railway belt line, at one time destined for industrial development, was rezoned for residential uses. Existing industries were gradually removed.†

The areas built up in the 20's and 30's, as well as many of the older parts of the city closer to the downtown area, are characterized by a great wealth of trees (Plates XII, XXV and XXVI). These provide attractive shade for many residential streets, hiding ugly overhead wiring, which continues to mar the city's appearance. In 1890, in his annual report, the City Engineer thought it "advisable to abate the practice of allowing the stringing of wires on poles, at least in the business portions of the city." In 1943, the City Planning Board urged the removal of overhead wires and overhanging signs to throw off what it called the "pioneer town complex." Nonetheless it was not till the 50's that a program of wire removal was started, principally along some streets of the inner city.

The most striking phenomenon in the residential development of recent decades has been the gigantic suburban expansion, which has added thousands of acres a year to the built-up area (p. 100). Since 1945, when it was just under 950,000, the population of Metropolitan Toronto has increased very rapidly. In 1955 it reached 1,300,000 and 1961 it amounted to 1,600,000. More than 90 per cent of this growth has taken place in the three outer suburbs—Etobicoke,

*See also City of Toronto Planning Board's Rosedale Planning District Appraisal, 1960.

†Report to the Council of the Village of Forest Hill on the Development of the North Section of the Village. Toronto, 1931.

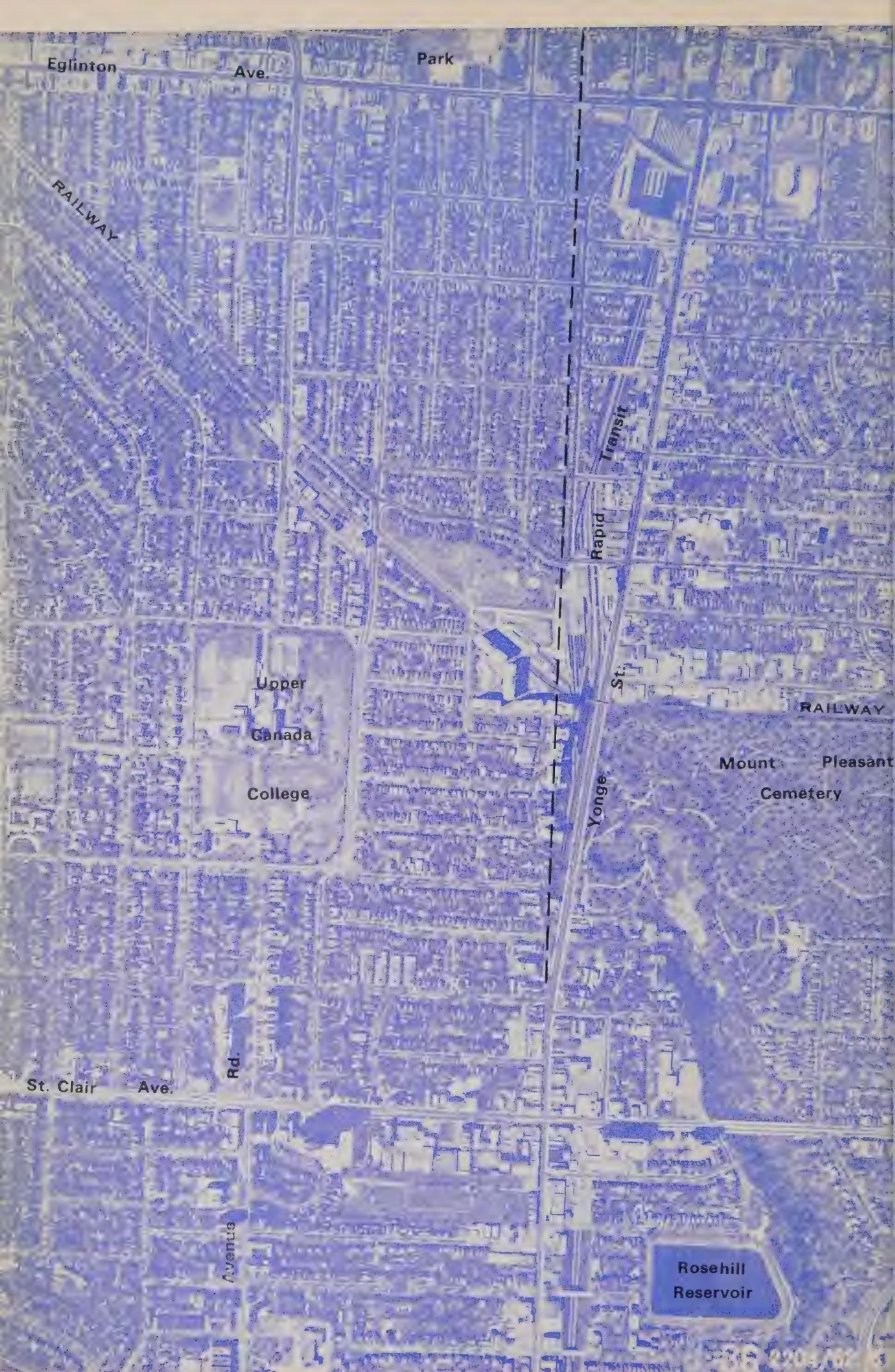


PLATE XVI. North Toronto and Forest Hill. This air photo illustrates many of the points raised in the text. Note the adjustment in the surveying of Yonge Street. Compare with Plate XXV. Scale: 1 inch = 1,000 feet.



PLATE XVII. Solid brick houses in a good residential area about 20 years old along the boundary between North Toronto and North York. Snow usually piles up on side streets from late December to the middle of March.

North York and Scarborough. Even more striking perhaps was the rapid appropriation of land for urban uses. Postwar developments in Toronto have been similar to those in other North American cities in the acquisition of enormous tracts of land for the building of houses, shopping centres, and industrial plants. The city proper simply did not have the open space to accommodate the new expansion, especially the flood of postwar housing built with the aid of long-term, low-cost government loans. On the other hand, many left the old overcrowded parts of the city for the open spaces and fresh air on the outskirts. In the eyes of many, the city was no longer a suitable place to live. In 1860 the City Engineer had reported: "Again, to create greater comforts and render more desirable for residences the central portion of the city, is to reduce the temptation to seek suburban residences, as well by the wealthier as by the middle classes. . . ." Despite this warning, the city had failed to retain or protect its residential qualities.

The suburbs, however, did not measure up to the ideal. As expansion continued, the open country receded more and more into the distance. In building the new subdivisions, the aim continued to be to crowd on the land the maximum number of units permitted by law. There was no attempt to group neighborhoods around schools and shopping and recreation facilities. In the early postwar period especially, the uninspiring and monotonous grid pattern was strictly adhered to. Shopping facilities were often far away along the former concession and side roads. Public facilities, such as storm and sanitary sewers and sidewalks, were not installed in homes at the time of building. Trees were replaced with lopsided hydro and telephone poles. Thus for many inhabitants the suburbs had neither the conveniences of the city nor the attractions of a rural environment.

Most of the suburban townships were caught up in the excitement of this vigorous growth, which for the most part they regarded as purely local, not as part of a larger metropolitan expansion. Because of the persistence of this attitude and the existence of a deeply rooted suspicion of planning in general, local councils commonly ignored the recommendations and warnings of planners. Although the over-all authority of the County Planning Board prevailed and all subdivision plans had to be approved by the Minister of Planning and Development, expansion continued to be haphazard and chaotic. As explained earlier in this chapter, the problems thus raised contributed greatly to the creation, in 1953, of a new form of government for the conurbation.

In more recent years, greater imagination has been shown in suburban development, and serious attempts have been made to create true communities. An example is Don Mills, where the house types are of great variety and include multiple dwellings built on an irregular street pattern arranged around a modern shopping and service centre. Despite some teetering hydro poles and unintegrated open spaces, the community has many assets and stands in sharp contrast to the earlier amorphous subdivision, which was devoid of character or individuality. Thus has postwar suburban expansion contributed to the development and realization of new concepts in city building (Plate XVIII).

It is not surprising that many postwar suburban districts are in need of measures for improvement. One of the most important changes provided for in the Metropolitan Plan is an increase in population densities. It is hoped that by encouraging a mixture of varying house types, including apartment buildings, the gross residential population density in most of Etobicoke, North York and Scarborough will be increased to between 20 and 29 persons per acre. Such densities exist at the present time in North Toronto, Forest Hill and adjacent parts of North York. An important advantage of such residential increases is that they would make it possible to provide adequate public services, particularly public transportation.

Parklands

Open space and parkland are integral elements in the residential character of any city. In 1958, open space consisting for the most part of public parks and golf courses just exceeded 8,500 acres of Metropolitan Toronto, or about 9.9 per cent of the developed area. Public parks in various stages of development and with different functions occupied some 3,400 acres, golf courses both public and private 2,730, cemeteries 1,310, race tracks 750 and miscellaneous features the remainder.

In the metropolitan area, the distribution of parks is very closely related to that of the valleys and ravines. The most important exceptions are High Park, the Island, and the lakeshore both east and west of Toronto Harbor. Understandably, such an unplanned distribution pattern necessarily fails to meet the requirements of the residential areas. In both the city and the suburbs, extensive parts of these areas with high and medium population densities are short of local parks. More than one third of the inhabitants of Metropolitan Toronto



PLATE XVIII. The planned community of Don Mills.

live where this deficiency prevails, about 220,000 of these in the most densely populated areas, where there are 80 or more persons per net residential acre. The greatest need is for neighborhood and district parks.*

Over the last decade, however, vigorous programs initiated by the City of Toronto Parks Commission and augmented after 1954 by the Metropolitan Toronto Parks Commission and the Metropolitan Toronto and Region Conservation Authority have resurrected old parks and developed new ones. In the late 1940's, the condition of most parks in Toronto was deplorable, but by the early 60's significant improvements had been made in the appearance and function of many recreational areas. Publicity campaigns about the state of parklands carried on by newspapers and other organizations undoubtedly aroused much public dissatisfaction, which in turn was echoed at administrative levels.

For the most part the parklands are made up of two major natural assets—ravines and river valleys—and the lakeshore. The former, with rough, heavily wooded terrain, have been the last sections of the city to be occupied at any stage in its development. Nevertheless, of the 1,900 acres of the original ravine land, 840 acres are now occupied by houses, factories and roads.† It seems

*Official Plan (*op. cit.*), Plate 53.

†City of Toronto Planning Board. Report Natural Parkland. Toronto, 1960.

however, that such developments have been slowed down if not altogether stopped and that, in view of current planning and zoning measures, few houses or factories will henceforth be built in ravines. The very nature of the typical ravine, of course, makes it highly valuable as the route of an expressway (Plate XXI). Not only are the grades low but the land is cheap, and a ravine may carry an expressway through densely built-up areas with the least disturbance to existing land uses. Through a policy of placing the new expressways judiciously, much of the ravine landscape may be retained for parkland purposes.

For several decades, the plans required that the city be surrounded with a greenbelt. To a certain extent, this conception grew out of attempts to retrieve open space along the waterfront. The building of Fleet Street and the plans for a lakefront boulevard system were the first steps (pp. 70, 71 and 106). In its plan for improvements to the City of Toronto (1909), the Civic Guild extended the lakeshore system with a practically continuous chain of parks and parkways encircling the city and including large sections of the Humber and Don valleys with tributaries.* The 1943 master plan included the valleys of the Humber and Don rivers and of Black Creek, with scenic drives and parkways. Lack of co-operation, however, among the municipalities involved prevented its implementation. Some of them maintained that they already had enough parkland; others were simply not interested. So far as parks are concerned, the creation of Metropolitan Toronto as a new municipality meant a sudden turn of events, but the old idea of a greenbelt has, for the most part, been abandoned.

The Metropolitan Planning Board contemplates the appropriation of much of the ravine and valley land toward the creation of a number of green strips running in a northwest-southeast direction. Etobicoke Creek, the Humber River and Black Creek, the two branches of the Don River with their tributary ravines, and Highland Creek and the Rouge River constitute the new system, parts of which have already been developed as golf courses.

In the broad pattern of physical geography, the lakeshore is the second major recreational asset. Its length, including that of the Island, is about 30 miles. Poorly organized developments of the past, however, have greatly reduced its value and in many places have made it inaccessible. This inaccessibility, together with water pollution and poor parking facilities, has seriously restricted its use for recreation. At most, only 8 miles of the lakeshore can be classed as public beach.

The most important part of the lakeshore parkland is unquestionably the Island, which is just opposite the Central Business District and some of the city's most crowded residential areas (Plate III A). Few large cities have retained such a large generally undeveloped area so close to the downtown district. In the past, the Island was the object of many plans, but it is now under the jurisdiction of the Metropolitan Parks Commission and is being transformed into a multi-functional park. The change involves the removal of some 650 residential and commercial structures. Eventually, nearly 600 acres will become available for recreational purposes.

*Toronto Civic Guild of Art. Report (*op. cit.*), 1909.

At the same time, through the millions invested in sewage-treatment plants and trunk sewers since the formation of the metropolitan government, the age-old problem of severe water pollution along the beaches is being solved.

Between the mouth of the Humber and the western entrance to the harbor, the lake is fringed with a narrow strip of open space, part of which is adjacent to the grounds of the Canadian National Exhibition. Exhibition Park covers some 300 acres and contains many buildings. About 27 acres are devoted to the display of thousands of varieties of plants.

Standing out among all the parks of the city is High Park, which is laid out on hilly terrain just east of the Humber River and includes Grenadier Pond (Plate III B). This magnificent old park, a gift to the city, has gained much new grandeur in the last decade, and the beauty of its flower gardens attracts visitors from all parts of Metropolitan Toronto.

A noteworthy development of outlying parks within easy driving distance of Toronto has taken place under the sponsorship of the Conservation Authority and other branches of the provincial government. In recent years a number of picnic and camping grounds and lakes with swimming facilities have been made available.

Industrial Districts

About 10,000 acres of Metropolitan Toronto, or 11.7 per cent of its developed land, have been appropriated for use by different manufacturing and wholesale companies and warehouses. Although in the city proper these account for just over 60 per cent of the industrial employment, they occupy only one quarter of the land. Conversely, plants that account for less than one quarter of the industrial employment occupy at least 60 per cent of all industrial land in Metropolitan Toronto. These statistics simply show the importance of the old crowded multistoried plants in the city and of the sprawling single-storey operations in the suburbs.

Manufacturing and wholesaling are distributed in about the same ratio throughout Metropolitan Toronto. Even in the suburbs, surprisingly, it is typical of manufacturing and wholesaling companies to occupy certain districts in about equal proportions. Warehousing, on the other hand, tends to be more concentrated in the city itself, especially near the downtown area. No statistics are available to show the relative importance of the three activities in terms of land use, but it can be estimated that manufacturing takes up at least 50 per cent of all industrial land.

The first industries and warehousing arose on the waterfront.* There were no water-power sites to serve as nuclei for industrial concentrations. In the absence of such sites, manufacturing tended to move to open land just outside the built-up area at points of good access. The heavy dependence of manufacturers on railways for transport before the Second World War is reflected in most prewar industrial districts—long tentacles extending out from the centre of the city, mainly to

*Only manufacturing industries are dealt with in this section. The factors of location, however, apply in most cases to wholesaling companies as well.

the west and northwest, along the lines of the Canadian Pacific and Canadian National. In recent years, the rise of the trucking industry has reduced the dependence of manufacturing on the railways, and many of the industries in new suburban developments have no access to rail sidings. Nor are there any rail facilities in large parts of the inner city, where industry is also based entirely on truck transport. It is surprisingly true that very few industries now occupy waterfront sites, water transport having played a very limited role in industrial location in Toronto.

The modern metropolitan area therefore contains several areas of conflux in the pattern of the daily journey to work. The city proper has seven major concentrations of manufacturing and warehousing within its limits. In 1958, some 125,000 industrial workers were employed in these districts. Outside the city, 10 additional major industrial concentrations well distributed throughout the old and new suburbs give industrial employment to 80,000. Without this scattered employment pattern, the problem of traffic congestion would be far more complex. Understandably, the Metropolitan Plan allows for a consolidation of the existing districts and the addition of new ones so that the geographic diversity of employment opportunities may be retained. (See Figure 18.)

In 1950, industrial employment in the city reached a peak of 160,000. It then declined steadily, mainly owing to the movement of companies from old crowded quarters to the suburbs. Surrounding the City of Toronto are such old municipalities as Long Branch, New Toronto, Mimico, Swansea, Weston and Leaside, which have been engulfed by the expanding conurbation. In 1958, they accounted for about 19,000 engaged in manufacturing, or about 9 per cent of those so employed. This was 2,000 below the 1950 total. The new suburbs* have shown a remarkable increase in manufacturing, their industrial employment, which in 1950 was just over 6,000, having risen by 1958 to 61,000, or 30 per cent of the metropolitan total. A description of the geography of some of the main industrial concentrations in Metropolitan Toronto now follows (Figure 18).

The Downtown Area

Downtown industrial Toronto occupies a rectangular area lying between Niagara Street on the west and River Street on the east and between the railway tracks and King Street, but extending as far north as Dundas Street west of University Avenue. The area, which is the oldest and most solidly built-up industrial part of the city, can be further divided into eastern and western sections. These are partitioned by the Central Business District, from which most industry has been excluded because of high property costs and taxes.

Land use in the area is of great variety and shows many sharp contrasts. Besides manufacturing plants, there are retail stores, wholesale establishments, warehouses, rail yards, scrap-iron establishments, hotels, schools, churches and restaurants. With the exception of residences, very little grouping is apparent.

*In referring to new or postwar suburbs, the present context, unlike other sections of this book, includes not only Etobicoke, North York and Scarborough but also East York and York. Although much of the housing in these two additional areas is more than 15 years old, most of the industrial plants are of more recent date.

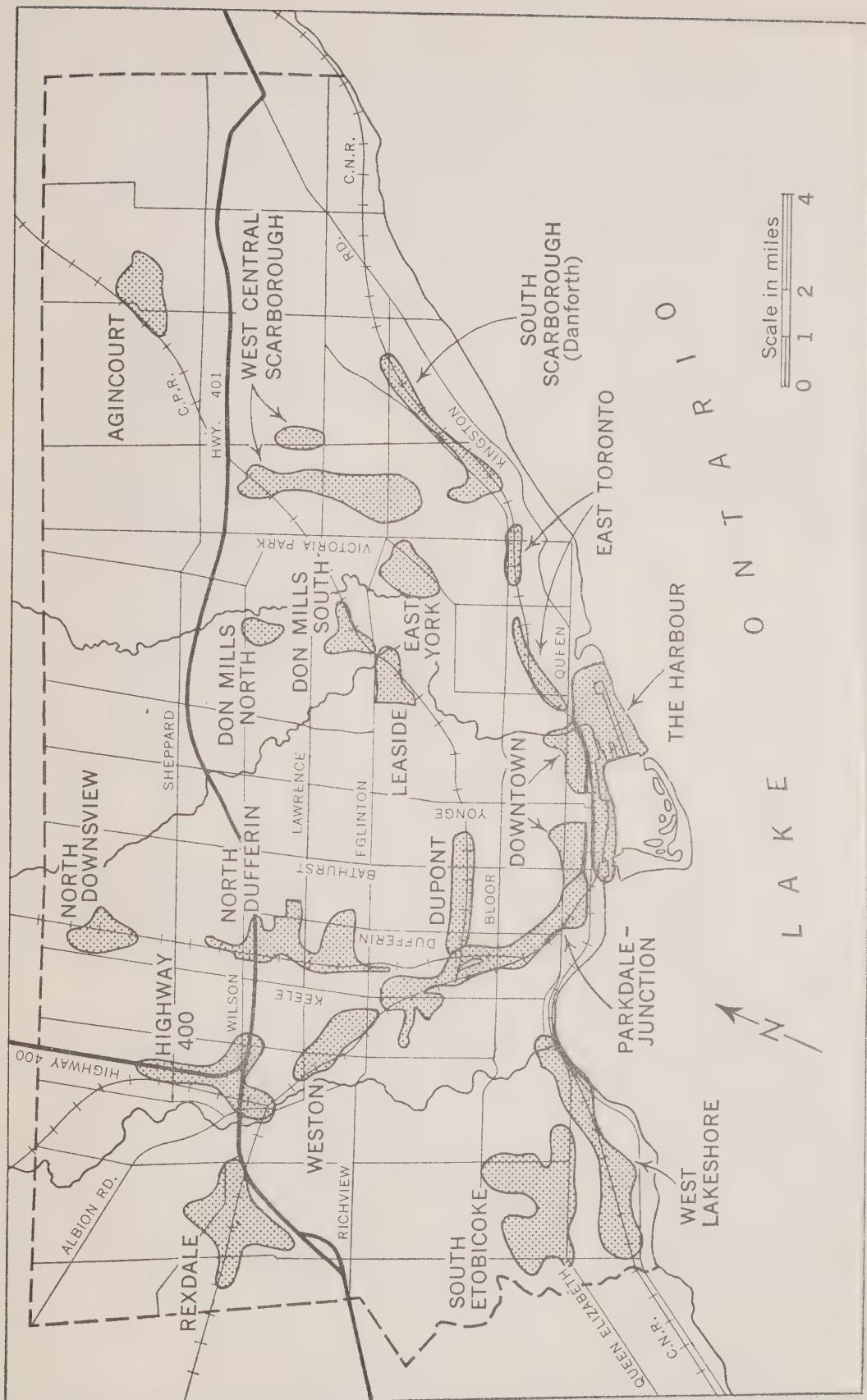


FIGURE 18. Major industrial concentrations in Metropolitan Toronto, 1960.

It is not uncommon to see along a street in quick succession one-storey shoddy retail stores, a well-kept wholesale establishment, an old multistorey, multipurpose building and a few dilapidated houses. Manufacturing itself also displays many contrasts. It is found in a great variety of buildings, some firms having located in the basements of very old structures, while others are on the upper floors of newer four- or five-storey buildings. Some small firms have appropriated old houses or even a former church or school. A few single-storey modern plants with a suburban aspect have replaced obsolete structures. Other companies have spent large sums on the renovation of their premises.

Upwards of 1,000 downtown manufacturing companies employ some 40,000 persons, of whom almost half are female. Most of the companies are very small, about 35 per cent of them having fewer than 10 employees. Three out of four firms rent their premises, and multiple occupancy of buildings is common. The textile industry and printing and publishing stand out among downtown enterprises, but there is also an important output of jewelry, shoes, electric appliances, and various foods and beverages.

The textile industry, or "needle trade," which accounts for one fifth of all employment, consists mainly in the manufacture of dresses, sportswear, men's clothing and children's wear. Female employment is exceptionally high, averaging more than 70 per cent. The industry is centred at Spadina Avenue and Adelaide Street, from where more than 100 textile firms can be counted within a radius of a few blocks. Just after the First World War, the expansion of financial and other functions in the Central Business District caused the displacement of the textile industry and its westward shift to Spadina Avenue; and there, prompted by the growing textile market of the 1920's, some of the more enterprising manufacturers erected such "factory apartments" as the Tower, Fashion and Balfour buildings. In the early 1960's this industrial complex remains solidly entrenched.

The printing industry, including printing, lithography, typesetting and publishing, ranks second in the downtown area. It is scattered throughout the area but has a slight tendency toward highly specialized types of printing in and near the central business district.

The persistence and, indeed, the vigor of downtown industry are accounted for by a number of factors, among which the market is the most important. Access to market has different shades of interpretation, but to most it has one of two meanings: central position in Metropolitan Toronto and proximity to downtown hotels. The concept of centrality varies greatly. To many the downtown area is no longer the most central part of the city. To others, largely for historical reasons, it is still the most attractive environment. On the other hand, many firms such as clothing manufacturers, jewellers and manufacturers of home and institutional furnishings—to name only three—depend to a great extent on out-of-town buyers. The typical customer will stay at a downtown hotel and transact most of his business near by, thus making the downtown location essential for many a producer. To others, market convenience means the possibility of modest but significant over-the-counter sales or proximity to such important neighborhood clients as department and chain stores. The specialties of a few are related

directly to other downtown firms. For example, advertising agencies, publishing offices and law firms frequently require the services of nearby printers and publishers.

Although labor is much less important, the availability of low-cost unskilled female workers in or near the downtown area is advantageous to industries that manufacture dresses and other textiles, shoes and confectionery. Furthermore, workers who do not live in the area can reach it easily via the well-developed public transportation facilities.

Among the other factors is accessibility to secondary materials. Small firms, in particular those with limited storage space or with little investment capital for stockpiling materials, depend on nearby warehouses for a steady and rapid supply. The continued presence of some firms in the downtown area may of course be explained in terms of inertia or inability to move. For some of them, relocation may be desirable but is prohibitive for such reasons as the impracticability of interrupting manufacturing processes, the difficulty of realizing heavy capital investment or the decline of business through poor management. Finally, the availability of low-cost floor space is of great importance. In fact, low rent is vital for some industries in the area. For small, newly formed enterprises, the downtown area has the function of an incubator. A firm beginning on a small scale, with limited financial resources, can find any desired amount of relatively cheap space in one of the old buildings. At first sight, this industrial area appears to be old and declining, but behind the façade of stagnant firms scattered throughout it there is an unexpectedly strong growth of youth and vigor (Kerr and Spelt, 1957).

The Harbor

The harbor area lying south of the railway right of way has surprisingly few manufacturing plants, wholesaling and storage being relatively more important. Some 5,000 industrial workers, mostly male, are employed in 28 manufacturing plants. Food-processing, including the refinery of sugar, the milling of grain and the manufacture of vegetable oils, employs about 20 per cent of the total. The manufacture of clothing, beer, chemicals, bricks, paper products and miscellaneous iron and steel products may also be noted. Most of the plants are relatively large, having more employees and area than are average for Metropolitan Toronto.

It is noteworthy that the lake front has had very little influence on industrial location in Toronto. Only six plants, employing about 1,000 workers, depend directly upon deep-water transport.* Included are those that unload crude sugar, grain, soya beans or sand and gravel at their own docks for processing. Mills manufacturing paper and paper products and a chemical plant draw fresh water from the lake, and for them a lake site close to the water's edge is of advantage.

*Not quite in the class of manufacturing plants is the Richard L. Hearn thermal generating station, where a waterfront site is mandatory for the unloading of coal from United States ports on Lake Erie.

With the exception of its suburban sections, the harbour front is undeniably the most attractive industrial part of Metropolitan Toronto. The remaining vacant land, administered by the Toronto Harbor Commission, will be sold only to firms that intend to make use of the harbor facilities.

Railway Orientation

Between the downtown area and the new suburbs the most striking aspect of the industrial pattern is that of railway orientation. During the last 80 years or so, most industrial tracts have been laid out in juxtaposition to rail lines. It is not surprising then that relatively narrow, virtually continuous industrial belts have emerged, jutting outward from the centre of the city. Not always, of course, did industry advance steadily toward the fringes. In some cases small industrial islands sprang up outside the built-up area (West Toronto Junction), only to be engulfed later by the expanding city. Nor did all industries in these belts have direct access to the railways. Some pre-empted sites on streets that lay behind the industrial strip paralleling the tracks. Further, industrial development was much greater along the rail lines running west and northwest than along those running east, and the striking pattern thus formed has remained to this day.

Dependence on rail transport in these areas has greatly diminished but has by no means disappeared. About half the rail sidings are regularly used; and several large firms making up 15 per cent of the manufacturing establishments but employing about 40 per cent of all manufacturing workers put their rail facilities to full use.

The cultural landscape in all railway-oriented industrial districts is remarkably uniform. Large multistorey buildings dominate, many dating back to the late nineteenth century, but a large number of small structures are scattered throughout. The companies vary greatly in size, but the average is considerably larger than any in the downtown area.

In the last decade, a few big companies have migrated to the suburbs, and their abandoned premises have been appropriated for warehousing or partitioned to house several small manufacturers. In this way the railway-oriented areas are gradually assuming downtown characteristics. This is especially true of the Parkdale and Junction areas.

Diversity is the leading characteristic of manufacturing in the railway-oriented districts, nearly all segments of the industrial structure, from food-processing to metal fabrication, being well represented. Only the meat-packing industry exhibits a significant concentration. Female employment is proportionately less than in the downtown area, averaging about 28 per cent. There are a number of industrial districts throughout the City of Toronto, the towns of Leaside, Weston, Swansea, New Toronto, Mimico and Long Branch, and part of York Township, which can be classed as railway-oriented. Only three, however—the Parkdale-Junction, Dupont and East Toronto districts—have been selected for special study.

West of Niagara Street and along the railway tracks to the northwest through the Junction area extends an almost continuous industrial belt, in which several big firms are interspersed with a large number of small to me-

dium-sized plants.* Industry is greatly diversified, especially in food-processing, chemicals, textiles, electrical apparatus and miscellaneous iron- and steel-working. Some 300 manufacturing plants employ 38,500 workers, of whom just under 30 per cent are females. Only two industrial concentrations stand out —those of Massey-Ferguson, manufacturers of agricultural implements, and of the meat-packing district in the Junction area.

In 1879, the Massey Company concentrated its operations in Toronto, selecting a site on the western edge of the city near the small lakeside community of Parkdale. Several rail lines gave excellent access along the southern boundary of the property, and the city extended its public transportation facilities westward along King Street. It is impossible to measure the effects of this development within the district but they were undoubtedly considerable. The Massey-Ferguson company still occupies the old site and employs about 5,000 workers.

In the late nineteenth century West Toronto Junction spawned a number of industries, and in 1903 an event of great significance was the opening of the stockyards on St. Clair Avenue near Keele Street, on the outskirts of the city. At first only a few meat-packing plants were attracted to the site, but in 1912 the decision of the Swift Company to build its main plant next to the stockyards helped to centralize the industry. Today, the slaughtering and meat-packing carried out in this district amount to 80 per cent of the total for Metropolitan Toronto and give employment to some 4,500 workers.

The Dupont area is a high concentration of manufacturing in a narrow east-west belt, stretching along the tracks of the Canadian Pacific Railway. The belt is virtually continuous, running almost due west from the Dupont Street and Bedford Road district to the vicinity of Dufferin Street, where it merges with the Junction area.

In the early 1880's the C.P.R. built a belt line just south of the Iroquois shoreline, thus bypassing the downtown yards and facilitating the movement of through traffic. Development began with the laying out of sites with sidings and the sale of these sites to different industries. A few industrial lots just to the north and south, without direct access to the railway, were also sold. The Dupont area became an outlying suburban industrial district analogous to present-day Scarborough and Etobicoke but much more dependent on rail facilities. This dependence, however, although heavy, was by no means complete.

Development continued and by the late 1920's most of the factory sites had been appropriated. The area now has about 75 industrial plants, in which some 9,000 workers are employed. The most striking characteristic, as in other parts of Toronto, is the diversity of output. Firms manufacturing light and heavy iron and steel products ranging from small machine parts to bulky castings form the largest group and employ about one third of the district's workers. In contrast, food- and beverage-processing plants, especially those that turn out dairy and chocolate products, account for only 18 per cent of the industrial

*Industry continues into the older parts of York Township and through the town of Weston, but the statistics given here refer only to the section within the City of Toronto.

employment. The presence of firms making industrial gases, women's hosiery, printing inks, paints, infants' wear, building materials and rubber products reflects the remarkable variety. Another characteristic is the diversity in the size of the plants, which range from those that employ 10 workers to one that employs more than 1,000.

East Toronto is an old industrial district east of the downtown area, with River Street as an arbitrary boundary. Industry is found along the banks of the Don River and to the east, where nearly all the industrial land is adjacent to the Canadian National tracks. There are almost 100 manufacturing companies, and they employ 13,500 persons, about one third of whom are females. As in other Toronto industrial districts, diversity in the size of plants and in the type of manufacturing is characteristic. Most conspicuous are plants making soap, rubber products, toys, foods and beverages, electrical apparatus, paper goods and a great variety of metal products. As in the Junction and Dupont areas, the railway was unquestionably the main attraction for industry before the rise of large-scale commercial trucking. Perhaps the most striking feature of the East Toronto district is that it did not expand to the same extent as the districts in the western parts of the city.

Manufacturing in the Suburbs

Since 1950, remarkable industrial expansion has occurred in the outlying townships of Scarborough, Etobicoke and North York and parts of the townships of York and East York. At present, almost 30 per cent of Metropolitan Toronto's manufacturing is done in the postwar suburbs, but not all suburban areas have shared equally in this growth and in the distribution of the resultant industrial districts.

Most of the new suburban factories are medium-size, one-storey brick buildings standing about 100 feet from the road on well-landscaped lots (Kerr and Spelt, 1960). On the other hand, there are many small plants, and it is not uncommon to see a row of them built closely together near the road. The enforcement of zoning regulations drawn up by planning boards in recent years has resulted, to a large extent, in a clear separation of industrial districts from residential subdivisions and from retailing and service concentrations. Only in the older suburbs are housing and manufacturing mixed. In the most recently developed industrial sections, the land is used entirely for manufacturing plants, warehouses, wholesale establishments, service stations and banks.

The diversity of industry typical of other parts of Metropolitan Toronto also characterizes the suburbs, where the representation of nearly all segments of the industrial structure is good. In particular, that of electronic equipment, electrical appliances and building supplies (especially of aluminum screens and doors) is even greater than in the city. Textile plants are few, and heavy industry is not common. In size, the suburban plants vary greatly and differ in no significant way from those of the city. A recent survey showed that about 70 per cent of the firms (80 per cent for all of Metropolitan Toronto) have fewer than 50 employees and that these in turn account for 22 per cent of the industrial employ-



PLATE XIX. Looking eastward along Finch Avenue in North York across the irregular strip of suburban expansion on both sides of Yonge Street. In the upper right corner is Highway 401; the northern boundary of Metropolitan Toronto is just off the left margin of the photo. Note the adaptation of the street pattern and the limits of the individual subdivisions to the shape of the farm lots.

ment, which is the same as the metropolitan percentage. The female labor employed in suburban industries also conforms proportionately to that of Metropolitan Toronto, being one third of the total for manufacturing.

Development of manufacturing in suburban Toronto results largely from relocation, about two thirds of all enterprises having been previously situated elsewhere in the metropolitan area. The remaining third were either entirely new or had come in from other areas. Many of them came from the United States.

The flight of industry from the city proper is an old problem. As early as 1944, the City of Toronto Planning Board pointed out the difficulties faced by industry and stated: "If the diversion to suburban areas of existing and new manufacturing enterprises, such as those engaged in food-processing, drug and clothing trades is to be checked, the deficiencies of otherwise suitable sites in the city must be quickly corrected."



PLATE XX. Suburbs built in the late 40's and early 50's. Note the shopping centre, including a department store and its extensive parking facilities, near the intersection of two major cross-town traffic arteries—Lawrence Avenue and Bathurst Street. A public housing project consisting of multiple-dwelling housing is visible in the upper left quadrant. On the vacant land northwest of it, a new regional shopping centre will arise on a strategic site near Highway 401 and the new Spadina Expressway. In the far upper left corner, a concentration of industrial establishments may be seen. It is shown in more detail in Plate XXIII.

Industries leave the city and relocate in the suburbs for a variety of reasons. They generally occupy old buildings no longer suitable for modern industrial organization. Since taxes vary with the quality of the building, renovation or rebuilding is often not considered financially advantageous. From a manufacturer's point of view it may therefore be cheaper to build a new plant outside the city. Lack of space is another problem, not only for expansion of plant facilities but also for parking and access. Large modern tractor-trailers have not enough space for easy manoeuvring in the old industrial areas (Kerr and Spelt, 1961).

An analysis of plant movement within Metropolitan Toronto shows that industries that have built up an association in one part of the city prefer to remain as near as possible to the old location when selecting a new site in the suburbs.

Nearly all the plants in south Etobicoke that originated in Metropolitan Toronto have moved from the western half of the city. Similarly, nearly all the firms that moved to Scarborough came from the eastern half. (See Figure 19.)

The main reason for this migration pattern is the distribution of employees. The large numbers of industrial workers who have moved to the suburbs in the postwar period have generally tried to keep as close as possible to their place of employment. Thus when finally the plant management itself decides to move, it chooses a site in the suburbs most convenient to its personnel. Indeed, the location of the owner's house can be decisive in determining the new site. In only a few cases do market conditions determine the new location.

The dominant factor in the selection of a site for industries coming from outside is the cost of property. This is also the main consideration for local firms within the suburban area to which they are migrating. Land values vary with the stage of development of an industrial quarter, the cost tending to increase as the industrial development proceeds. It follows that an outside manufacturer coming to Metropolitan Toronto could very well select a western suburb in one year and an eastern suburb in another, his choice depending on land values and the type of industrial district in which he wished to become established. In short, most manufacturing companies of the kind found in suburban Toronto are "footloose"—i.e. very free in their choice so long as suitable sites are available. This opens interesting prospects from the planning point of view, since any piece of land in the suburbs will, after having been serviced and zoned for manufacturing, attract industries in times of expanding economy. Industry may be guided to locate on land that is inherently most suitable for planning.

Commerce

In 1958, commercial establishments—mainly retail stores, offices and service stations—took up just over 3,000 acres, or about 3.5 per cent of the developed land in Metropolitan Toronto, but the distribution of floor space and land area appropriated for their use was very uneven.

In the 1956 survey* it was discovered that in the city 17,400,000 square feet of retail floor space occupied 860 acres of land while in the inner suburbs 4,300,000 square feet and in the outer suburbs 6,500,000 square feet occupied 277 and 576 acres respectively. The small difference in acreage between the city and the suburbs compared with their difference in floor area clearly reveals the sharp contrasts in commercial land use.

The contrast is even more striking for office space. In 1958 the city had 23,700,000 square feet of office space, concentrated on 212 acres and the suburbs (inner and outer) 1,700,000 square feet on 194 acres!

Finally, figures on service stations for 1958 show 405 stations occupying 93 acres in the city (average, 0.23 acre) and 845 stations on 275 acres (average, 0.32 acre) in the suburbs (inner and outer). No precise statistics are available for the years after 1958, but on the basis of incomplete information from oil companies and the Metropolitan Toronto Planning Board, the average

*Official Plan (*op. cit.*), p. 101.

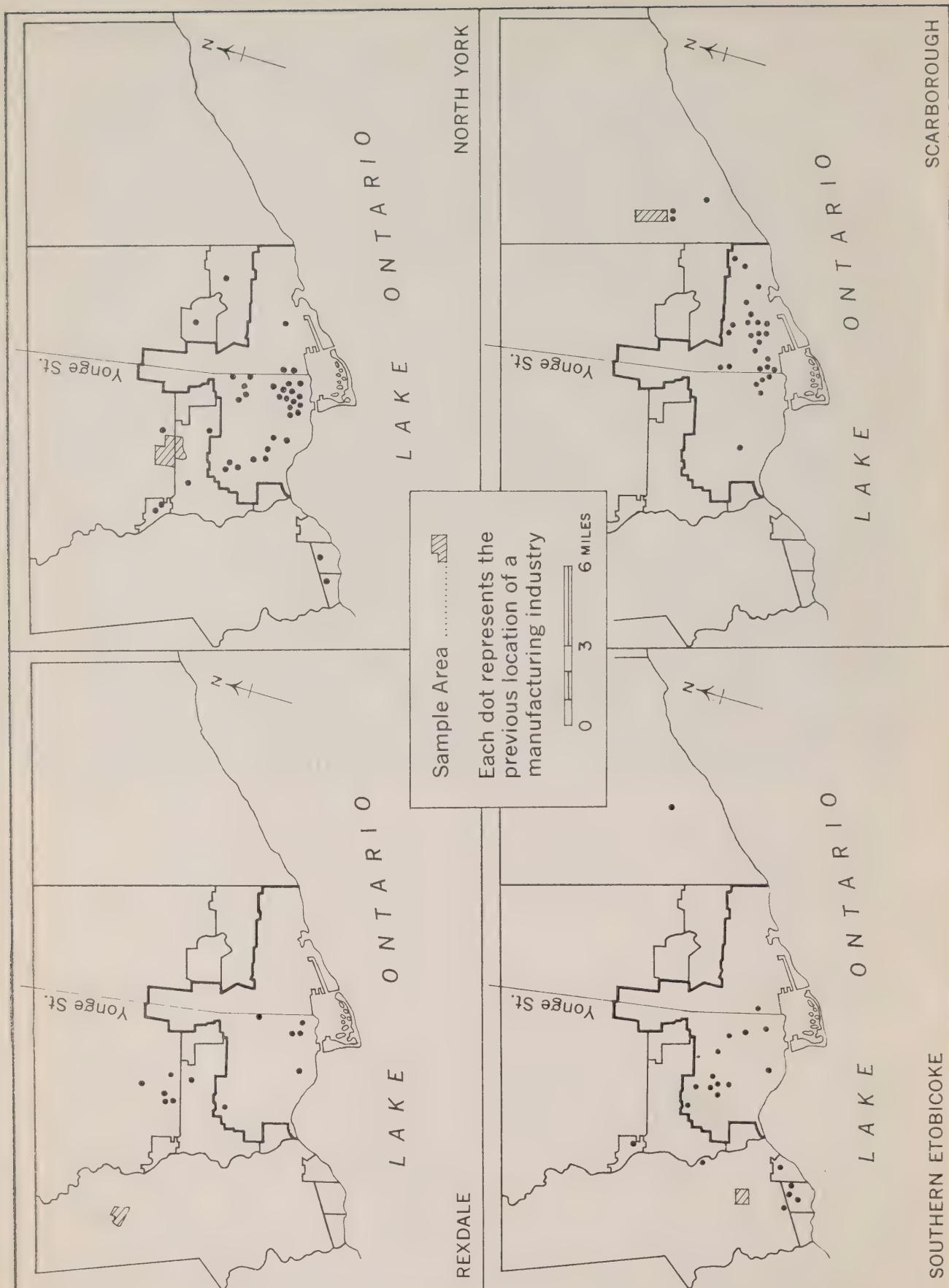


FIGURE 19. Intracity migration in Metropolitan Toronto.



PLATE XXI. A southwesterly view at the confluence of the East (to the left) and West (to the right) branches of the Don River. Vacant ravine land has been used to channel the Don Valley Parkway to the downtown area, as the railway did earlier. The new road at the right is a modern version of the old Don Mills Road, parts of which, together with a bridge, have survived. For a long time the road constituted a tenuous link between the city and the wedge of open space between the branches of the Don River. To the left of the parkway is the Township of East York; to the right, the Town of Leaside. The new concentration of apartment buildings and an adjacent shopping centre are on the site of a former race track. The tall buildings in the upper right are at St. Clair Avenue and Avenue Road (see Plate XVI). The large viaduct in the upper left takes Bloor Street eastward across the Don Valley.

service station built in the early 1960's in the outer suburbs can be said to occupy at least two thirds of an acre. Clearly, the demand for land for the typical suburban service station is at least three times that of the gasoline station in the city proper.

Only a few decades ago, the downtown area was by far the most important commercial concentration in the Toronto conurbation. It still is the leading retail district but has lost its generally predominant position. According to the 1951 census of retailing, 27 per cent of all retail sales in Metropolitan Toronto took place downtown—i.e. in an area here defined as bounded on the north by College and Carlton streets, on the east by Jarvis Street, on the south by Front Street and on the west by University Avenue. The returns for the 1961 census,



PLATE XXII. Vertical photo of postwar suburban developments in Scarborough and North York.
Scale: 1 inch = 1,000 feet.



PLATE XXIII. A northwesterly view of a suburban industrial district near Lawrence Avenue and Dufferin Street. A one-time jog in Lawrence Avenue has been eliminated. In the foreground, a supermarket surrounded by an enormous parking lot.

when released, will undoubtedly reveal a continuing relative decline for the downtown area, especially when it is viewed against the metropolitan population increase. The downtown area draws its clientele both from the whole of Metropolitan Toronto and from nearly all of Ontario. It is by far the leading retail concentration between Montreal and Winnipeg and will be described in greater detail in the next chapter.

Retailing

Along the main traffic arteries of the city and in such older suburbs as Leaside and Mimico, commercial strips developed very early. They meet the needs of the neighboring residential population for goods and services, which are in frequent, generally daily, demand. With the increase in traffic circulation, the strips have begun to present problems that will probably be difficult to solve. The streets, most of which already carry double streetcar tracks, have to serve also as main cross-town automobile and truck routes. In this function they are

hampered by the reduction of the right of way for the provision of curb parking. The shopper has to walk considerable distances, while the congested street makes crossing from one side to the other hazardous. Even in the older parts of the city, although walking distances are relatively short, the automobile has assumed importance for shopping purposes, requiring in turn space for parking and manoeuvring on commercial streets. Parking tends to overflow onto nearby residential streets, thus causing an undesirable development from the point of view of the homeowner. Attempts have been made to solve the problem by creating parking lots behind the strips, but this solution may also be detrimental to nearby residences. Moreover, it increases the walking distance for the parcel-carrying shopper, especially when curb parking is restricted (Plate XXIV).

It is interesting to note that some commercial east-west strips have developed more intensively on the north side, which longer periods of direct sunshine make more pleasant for shopping than the south side, especially in winter and spring.

In the newer suburbs, the neighborhood commercial strip does not exist. The stores are grouped in plazas with abundant parking facilities. On all but special shopping nights, the plazas tend to become deserted after closing hours, lacking the activity of the commercial strips in the older parts of the conurbation. The more recent suburban shopping centres are more compact.

Large concentrations of neighborhood shopping and service facilities have developed at the intersections of main commercial strips. Some of these, especially when quite accessible to densely populated areas in the medium and upper income brackets, have acquired extensive trading areas, reaching far beyond the immediate vicinity and even attracting a city-wide clientele. Thus developed, they



PLATE XXIV. A neighborhood shopping centre on Danforth Avenue in east Toronto. Small apartments or flats occupy the second floor. Most of the cross-town arteries in the city and the old suburbs are lined with shops and services.



PLATE XXV. St. Clair Avenue from the west. In the foreground the Imperial Oil Building reflects the decentralization of office buildings. Just to the east the old village of Deer Park, at the corner of the Yonge Street intersection, now supports a diversified retail and service concentration. Forested Moore Park and North Rosedale stand out in contrast with the suburbs of Scarborough, just visible on the horizon. To the right, a reservoir of the municipal waterworks.

compete sharply with the downtown retail concentration, and the large department stores have responded by opening branches in them, especially in those situated in modern suburban centres of this type. An example in the older part of the city is the Bloor, Yonge and Bay district, which after the Second World War, in addition to the customary retail and service agglomeration, in this instance inherited from the former village of Yorkville, acquired a large number of specialty shops that provided a wide range of goods and services for the higher income groups. North of Bloor Street, the heavy demand for retail sites has brought about the appropriation of old houses on Yorkville Avenue and Cumberland Street for use as stores. The predominance in these establishments of such groups as milliners and interior decorators suggests a high degree of specialization and may signify a breaking away from the narrow confines of the strip development characteristic

of all shopping areas outside the central business district. It is likely that the Bloor and Yonge area will eventually merge with the downtown retail concentration, but the two are still separated by a few blocks along Yonge Street that are typical neighborhood commercial strips.

Other significant regional or outlying business centres serve large sections of the conurbation and beyond. Examples may be cited: in the older parts of the built-up area—the centres at St. Clair Avenue and Yonge Street (the former village of Deer Park) and at Avenue Road and Eglinton Avenue; in the newer areas—Lawrence Plaza (Lawrence Avenue and Bathurst Street), Cloverdale Plaza (Highway 27 and Dundas Street), Yorkdale (Dufferin Street and Highway 401), the Don Mills centre (near a main intersection in the community of that name) and Cedarbrae (in Scarborough).

In the suburban centres, stores are arranged around huge open spaces well provided with parking facilities. Since the customer can leave his car parked centrally while he does all his shopping, the flow of automobile traffic in these plazas is much better than along the typical commercial strip. On the other hand, the masses of parked cars that dominate the scene lessen the attractiveness of many of these plazas. So in some of the most recently constructed centres the shops lie along a system of pedestrian malls with the parking lots on the outside. Such centres encourage leisurely window shopping and give customers more protection from inclement weather than the wind-swept older type.

Office Buildings outside the Downtown Area

The revolutionary changes in transportation, and especially the general progress made in the field of communication, have created a new distribution pattern in the location of office buildings. The downtown area is still unquestionably where most office employment is concentrated, but other concentrations have arisen near main intersections of cross-town streets and the Yonge Street subway. In particular, headquarters offices concerned with company management for the country as a whole or a large part of it do not always find a downtown location essential. Several insurance companies have erected substantial office buildings to the east of the Bloor and Yonge intersection; just west of the St. Clair Avenue and Yonge Street subway station, an oil company has put up one of the largest office buildings in the metropolitan area; and near Eglinton Avenue and Yonge Street a major concentration of office buildings is rapidly developing (Plates X, XV and XXV). About half the new office space acquired by Metropolitan Toronto in the 1954-61 period is, in fact, the result of construction outside the Central Business District* (*see also* p. 156). To be more specific, about 18 per cent was built in the Eglinton-Yonge area, 15 per cent in the Bloor-Yonge area and about 10 per cent in the St. Clair-Yonge area.

*From an interview with Kenneth Philp, of the A. E. Le Page real-estate company, who compiled various data on office buildings from a personal survey.

THE CENTRAL BUSINESS DISTRICT

The Central Business District is the commercial, financial and administrative heart of the metropolitan area. It is the focal point for the traffic and communications pattern of the entire conurbation and far beyond. In its buildings, some of which are skyscrapers that dominate the city's skyline, at least 145,000 persons, or just under one quarter of the total employed in Metropolitan Toronto, earn their livelihood. Within its confines, there is great diversity in both form and activity. Financial and retail functions dominate, but wholesaling, warehousing and manufacturing are carried on as well.

In Toronto, as in many port cities, the Central Business District is far off centre with respect to the metropolitan area considered as a whole. Commercial activity was concentrated at first in Market Square, just west of the Old Town. A cattle, sheep and poultry market was regularly held and soon butcher shops, banks, hotels, taverns and other service premises, including warehouses above the butcher shops, rose around it. To the east of the market, a city hall and a drill shed that was the predecessor of the Armories were built, and just south of them a fishmarket was operated. Vessels moored along the waterfront wharves, the most important of which was the one at the foot of Church Street. In the 1830's, the market district was nearly in the centre of the city, being strategically located between the Old Town and the New. King Street was the main artery, but Jarvis was also an important business street. Even at present, although nearly all market activity has disappeared from the area, a few allied services such as the seed and feed trade and harness-making reflect its former existence.

As the city continued to grow, new commercial development took place farther west, in the direction of Yonge Street, which rapidly became the main north-south artery. A financial district began to take shape and character along Wellington Street and lower Yonge, and retailing became increasingly concentrated on the latter. In the early 1860's, 10 of the dozen or so banks in Toronto were located either on Wellington Street west of Church Street or on lower Yonge Street. The Bank of Upper Canada, at the northeast corner of Duke and George, was the only major bank farther east. The stock exchange was situated among other financial institutions on Wellington Street. Public offices concentrated northeast of the King and Yonge intersection included the post office, the court house, the registry office, the county building and two public halls. Two insurance firms, a bank, the offices of the gas company, and the masonic hall made up the rest of the main buildings in this area. The city hall remained on Market Square, not to move until the end of the century.

The expansion of retailing continued in a westward direction along King street and was followed by a northward development along Yonge Street. By the end of the 1870's the Yonge and King area was the most important shopping concentration in the city. The importance of King Street, especially between Church and York streets, persisted through the rest of the nineteenth century. Eventually, however, Yonge Street assumed the part played by King. This reorientation of the retail trade began with the establishment of the department stores at the intersection of Queen and Yonge streets: Eaton's in 1869 and Simpson's three years later. The success of the two companies stimulated an expansion of retailing along Yonge Street, which accelerated in the twentieth century and established a locational pattern that has continued to the present. The decline of King Street proceeded very slowly, however, and even today a few relicts, especially those between Bay and York streets, recall the earlier period.

The old financial centre near Wellington and King streets expanded westward toward Bay, which in the 1880's changed from a residential street to a manufacturing and general-business thoroughfare. In the late 1920's the low buildings along Bay Street were demolished and tall, modern office buildings rose in their place.* By this time Bay Street, like St. James Street in Montreal and Wall Street in New York, had begun to connote finance. The building of the Toronto Stock Exchange there in the 1930's gave the street further definition. In recent years a remarkable increase in office buildings has made University Avenue an integral part of the Central Business District.

Shape

The present shape of the Central Business District of Toronto is approximately that of the letter "J." The upper part of the long arm begins just north of College Street, on Yonge, and continues southward for almost $1\frac{1}{4}$ miles to where the barrier of the railway tracks makes it curve west. The small arm extends northward along University Avenue to the hospital zone at Gerrard Street. The trough between the two arms is comparatively shallow. All in all, the Central Business District covers about 0.45 square mile, or only 0.2 per cent of the land surface of Metropolitan Toronto. The tallest buildings are in the vicinity of Bay and King streets, but the highest land values are found at the intersection of Yonge and Queen, the heart of the retail zone. The area provides goods and services for a market and clientele that are not only city-wide but regional and even national. (See Plate XXVI.)

The boundaries of the CBD have been determined on the basis of land-use mapping. For the most part they form a transitional zone. Only in the face of barriers do they become a line. All existing barriers are man-made, there being none of natural origin on the level part of the Iroquois Plain that the district occupies.

*In April 1904, the Wellington, Bay and Front area was swept by a disastrous fire. Within some 20 acres, about a hundred buildings went up in flames.



PLATE XXVI. The Central Business District from the northwest. The distribution of tall buildings defines not only the "J" shape of the Central Business District, but also its western boundary, where the prevalence of trees in the old residential part of the city becomes very noticeable. In the foreground is Spadina Crescent; to the left, part of the University of Toronto campus; to the right, a modern public school.

Most striking is the sharp eastern boundary, which lies only a short distance from Yonge Street and is marked by an almost continuous row of public and semi-public buildings: churches, a hospital, schools and governmental, institutional and organizational structures.

Another imposing barrier is made up of the maze of railway tracks and the station that form the southern boundary. It is like a wall through which access to the harbor is gained by only a few underpasses. From time to time, plans have been announced for the erection of a complex of office buildings in the vicinity of Harbor Square, south of the railways, but so far they have not materialized. Apart from the establishment of extensive parking lots, partly for CBD workers, the barrier remains unconquered.

To the southeast, a broad transitional zone encompassing wholesaling, warehousing and light manufacturing now occupies much of the commercial and financial district of the nineteenth century. Here, in the late 50's the Central

Business District began to regain ground with the erection of an ultra-modern auditorium and a few office buildings, including one used by the federal government. It remains to be seen whether this marks a new trend and whether the CBD will spread again in this direction.

To the southwest a similar district forms a broad transitional zone, where the land is used mainly for railway sheds, light manufacturing, warehousing and wholesaling.

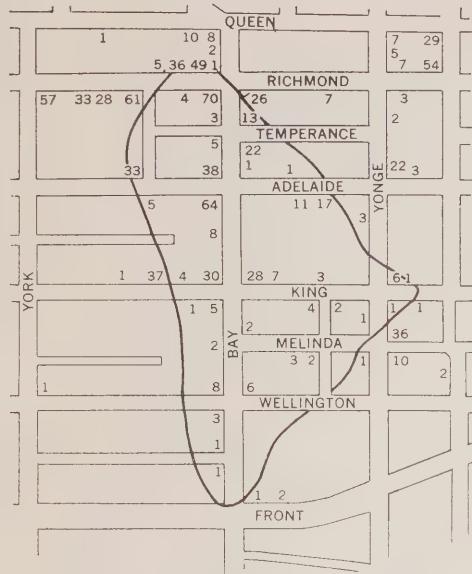
The northward extension ends abruptly against a complex made up of hospitals, provincial government buildings and the southern outliers of the University of Toronto.*

The trough of the "J" is an ill-defined area, part of which is occupied by folk of Chinese origin. How long Toronto's Chinatown will be able to persist in this area is questionable, but the ethnic barrier thus set up may be as effective in blocking the expansion of the Central Business District as the railway barrier to the south. On the fringe of the CBD just east of the hospital zone, is "the village." Small continental restaurants, antique shops and artists' studios here occupy old houses. This area, which for Toronto is unique and colorful, is now threatened with extinction by the expansion plans of the hospital to the west of it.

Retailing

With the grouping of similar and related activities within the Central Business District, a mosaic of different land uses has gradually crystallized (Figure 21). The bulk of downtown retailing is concentrated in a strip along Yonge Street to the north of King Street. This confinement to a single street is indeed unique. In most North American CBD's, retailing of this type encompasses several blocks, the shops being located on the four sides of each. In part, the development of the Yonge Street strip is probably due to the fact that large blocks of land west of Yonge between Queen and College streets are owned by a large department store; the expansion to the east has been blocked by the line of churches, hospitals, schools, etc. discussed previously. It should also be noted that the department stores hold complete sway over downtown retailing and leave little room for competitors. A significant concentration of high-class stores that could effectively compete with them does not exist in downtown Toronto but lies farther north, in the Bloor-Bay-Yonge area (p. 145). Downtown retailing comprises some 500 outlets, but by far the major part, perhaps as much as 75 per cent of the sales, goes to the department stores. The other retail outlets seem merely to draw the overflow of the department-store clientele.

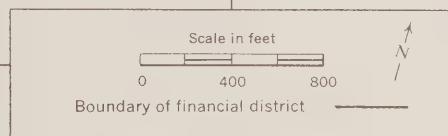
*Since the services provided are regional, this complex could be considered part of the Central Business District. In this chapter, however, the emphasis is mainly on the district as a centre of economic activities, most of which are city-wide and regional in influence. On the other hand it should be clear from what has already been said that such activities are by no means confined to the downtown area. The Central Business District is the most important concentration and, as such, merits special consideration.



Location and number of law firms in 1959.



Location and number of stock-brokerage firms and bond houses in 1959.



Location and number of companies related to the mining industry including mining engineers, geologists and mining contractors in 1959.



Location and number of mining companies in 1959.

FIGURE 20. The functional zones of the Central Business District, 1959.

The downtown stores have not been able to expand in proportion to the improvements in transportation and the large growth of the population of Metropolitan Toronto and the surrounding areas; in fact they are experiencing a relative decline in business. Competition from other areas, such as the Bloor-Bay-Yonge area and the suburbs has obviously contributed to this stagnation, which the department stores and other downtown shops have tried to counterbalance by opening branches in the major suburban plazas. This competition, however, has not been the only cause. As previously noted, the old residential areas around the Central Business District have received a large postwar influx of immigrants, many of whom prefer to shop in their own locality, where familiar items from their native lands are available and their own language is spoken. Food-retailing, for example, except that done in delicatessens, has thus almost completely disappeared from the Central Business District, especially in and near the office-building section.

Within the retail concentration there are some interesting locational patterns. Men's clothing shops favor the office area south of Queen Street. Ladies' apparel shops, on the other hand, are mainly on Yonge Street, north of Queen. Jewelry stores tend to cluster in the ladies' shopping area on Yonge Street but are also found throughout the office section, where nearly all the camera, hobby, sports and hardware shops are also situated. Household retailing, apart from that done in the hardware stores already mentioned, is concentrated on upper Yonge Street near the ladies' shopping area. Office furniture, equipment and supplies are almost entirely in the office area.

On the basis of this internal differentiation in retailing, the Central Business District may be divided into two distinct parts.

The main subdistrict contains the concentration on Yonge Street, from just south of the peak-value intersection at Queen to the College Street area. This retail strip, which includes the department stores, is the focal point for metropolis-wide regional retailing. Its stores serve clients of all ages and every economic status. It is the area for family shopping, with Thursday and Friday nights and all day Saturday as peak periods. The building of the subway has given this central retail district new significance. Direct subterranean access from the subway to two department stores, including an underground link between them, puts a huge indoor shopping complex at the disposal of the customer. The location of the two stores, which face each other on opposite sides of the street, has unquestionably benefited both, since together they attract a greater number of customers than they would if separated. It is not surprising, therefore, that both stores have established branches in the Yorkdale regional shopping centre off Highway 401 at Dufferin.

The second subdistrict, where retailing is of an entirely different nature, extends south and southwest of the peak-value intersection. With the exception of a small concentration on Yonge Street, the shops are widely scattered throughout the office area. They cater to the needs of office employees, who patronize the same stores for long periods. As many as 75 per cent of the clients may be regular customers. This subdistrict, consequently, has shopping times that are

closely related to office days and hours. In contrast to the main retail section it is quiet on Saturdays, when indeed many of the stores are closed. Retailing in the southern part of the downtown area seems secondary to the other activities of this part of the Central Business District.

Financial and Related Functions

The development of Toronto as a leading financial centre increased the importance of financial functions in the downtown area to rival, if not exceed, those of retailing. In turn it caused the emergence of a complex district within which financial institutions, law firms and head offices of companies as well as of importers, exporters and manufacturers' agents, among a host of others, are housed in a compact group of office buildings of various kinds, including several skyscrapers. This so-called financial and general office area occupies most of the Central Business District south of Queen Street and extends a tentacle northward along University Avenue.

The core of the financial district is at Bay and King streets, where stand the buildings of four large banks. Within a radius of about 300 yards are found nearly all the main investment houses and trust companies, the stock exchange and the offices of mining companies and of innumerable barristers and solicitors (Figure 20).

The location of stock-brokerage firms and bond houses is a criterion of the distribution of financial institutions, and the concentration of stock brokers and bond dealers along Bay and King streets is striking. None is located north of Richmond Street, and only a few are scattered east of Yonge Street. The only stock-brokerage offices outside the CBD are uptown branches, mainly on Bloor Street and St. Clair Avenue, that comprise no more than 3 per cent of the brokerage offices in Metropolitan Toronto.

The importance of Toronto as a financial centre for the Canadian mining industry has been emphasized, and a relation, direct or indirect, between this industry and many companies and individuals in the financial district may well be expected. The head offices of mining companies, as well as the offices of mining engineers, mining contractors, geologists and others, indeed form a very significant part of the financial complex. Mining companies are highly concentrated within a few large office buildings. Of the 214 represented, 85, or 40 per cent, have their offices in five buildings, and 31 firms are housed in one building on Adelaide Street. At least 80 companies have their mailing addresses on Bay Street. Consulting mining engineers, contractors and geologists are less numerous there but have a relatively high concentration just to the west, in the vicinity of Richmond, Temperance, Adelaide and Sheppard streets, and to the east, on Adelaide, King and Melinda streets.

Law firms are also remarkably clustered within the financial district. More than 1,100 of them, or 77 per cent of the total in Metropolitan Toronto are located in the CBD. The greatest concentration is along Bay Street, especially north of King Street, where proximity to Osgoode Hall, the registry office and the courts within the city hall is advantageous. One building at the corner of

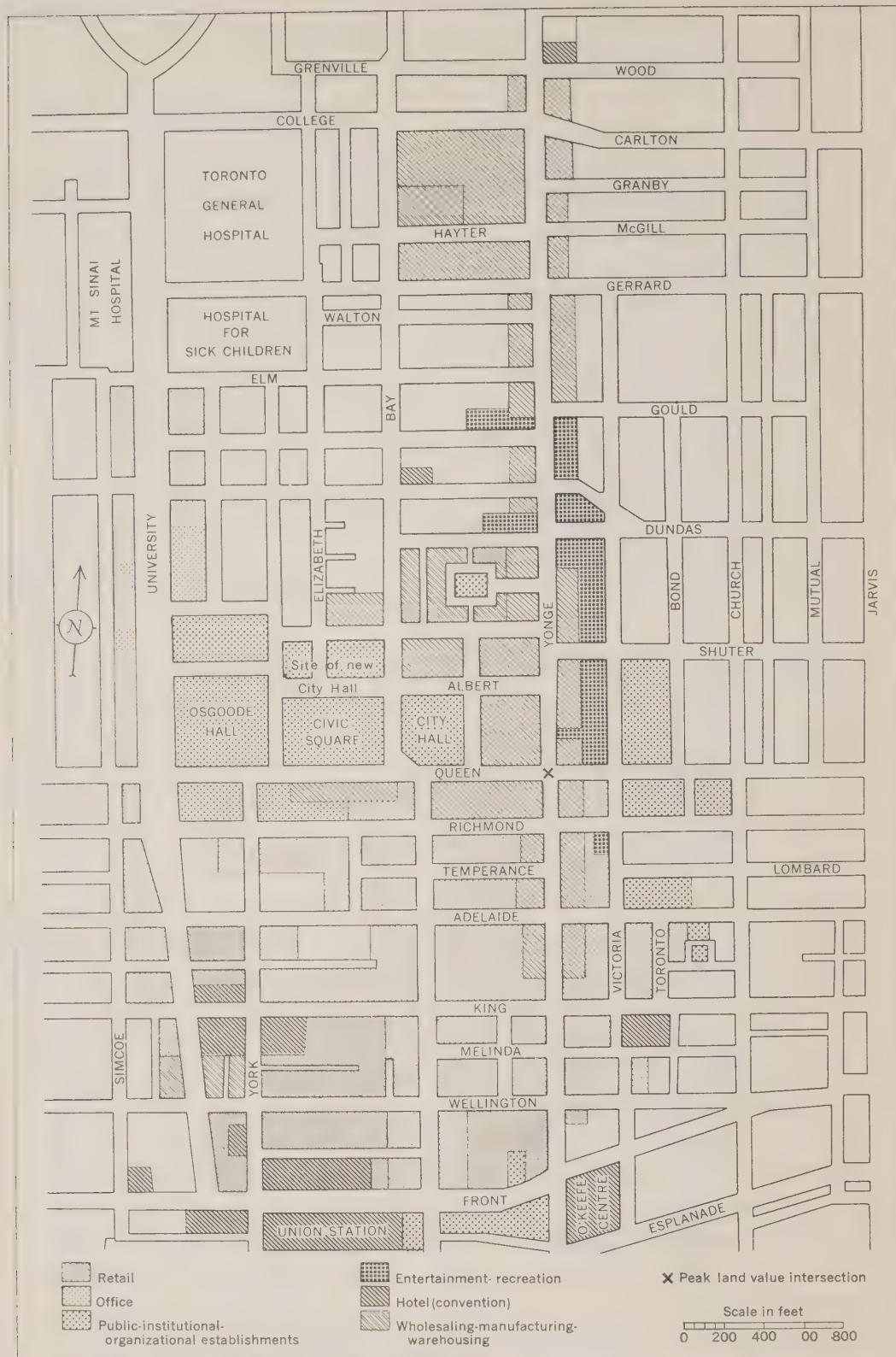


FIGURE 21. The financial district.

Richmond and Bay streets houses 70 law firms, and 20 other buildings have from 20 to 64 firms each. Many law firms specialize in corporation law, problems of taxation, contracts for mining properties and other matters related to finance in general.

On the basis of the foregoing, it is possible to demarcate with fair precision a core within the general financial and the general office area. The axis is unquestionably Bay Street from Richmond Street south to Front. It bulges to the east along King, Melinda and Adelaide streets and a little to the west along Temperance and Adelaide streets. The grouping of this financial community requires some explanation. In the past, powerful forces undoubtedly made clustering necessary, and it may be that some of them are still effective. Like many concentrations of economic activity, however, the contemporary locational pattern is affected by a great deal of inertia. In short, operations could probably be carried out just as successfully with a more scattered distribution, but there is no strong stimulus for a change, and the present concentration persists.

From the outset, the members of the small nineteenth-century financial community grouped themselves in close proximity, first east of Yonge Street along Toronto Street and then west of Yonge Street along King and Wellington streets and up and down Bay Street. Before the introduction of the telegraph, communications were slow and uncertain, most transactions had consequently to be made in person, and propinquity was mandatory. In the late nineteenth century, the rise of the stock exchange, the introduction of a bank clearing house and the growth of investment companies negotiating bonds strengthened this clustering by creating the movement of an enormous volume of paper from one office to another. To hold down the expense of exchanging stock certificates, bonds and cheques throughout the district by messenger, physical nearness was still essential. Now that many transactions are carried out by teletype and telephone, the movement of paper has greatly declined; but the need for the quick physical transfer of some securities and documents helps, at least in part, to keep certain financial institutions centralized.

It has already been suggested that the nineteenth-century financial community of Toronto gained identity and strength through its competition with Montreal. The elite undoubtedly held frequent meetings, both formal and informal, to establish policy and exchange ideas. As in New York and London, the private club became the principal meeting place, and the establishment of such clubs as The National and The Albany within or very near the financial district reinforced the clustering. In the last 50 years, furthermore, the expansion of the Toronto money market and its growing complexity have made it necessary for financiers to meet frequently to exchange information on all sorts of topics. Although the advantage is probably psychological, a recent study shows how important it is for members of the financial community to know at all times such factors as the play of forces affecting money flows, the corresponding changes and the attitudes of regulatory authorities (Robbins and Terleckyi, p. 34).

There are also advantages in having a collection of services within the financial district. Corporation lawyers, economists and printers, for example—to name only three groups—all provide the financial community with varied and special services, and the accessibility of such specialists is important.

All in all, a number of interrelated but intangible factors account for the very striking concentration of most financial activities in a relatively small area downtown.

Occupying a larger area but including the previously defined financial district is the zone of office buildings, all of which except those in the extreme west, where an extension has developed along University Avenue, are found south of Queen Street.

Some of these buildings are head offices of large companies, by whose names they are known. The company concerned may, however, occupy only part of the floor space, the surplus space being rented to other companies, enterprises or individuals. In contrast, other buildings are owned by individuals or groups, including foreign interests, for the purpose of investment.

As previously noted, there has been a tendency on the part of some enterprises to move their head offices out of the Central Business District, one of the most striking examples being the tendency of life-insurance companies to move to Bloor Street. At least half of the life-insurance firms, however, have remained downtown, and about 75 per cent of all other insurance companies also have their head offices there. Oil companies are more dispersed, only one third of them being in the Central Business District. This is remarkable in view of the general downtown concentration of mining companies. It seems then that, in spite of some evacuation, the CBD is still far in the lead as the main centre for a wide variety of companies.

Of the $25\frac{1}{2}$ million square feet of office space in Metropolitan Toronto, about $16\frac{1}{2}$ million square feet, or some 65 per cent, are in the CBD. There, despite the significant decentralization of the last decade (p. 146), is found about half of all office space added in the period 1954-62. At the time of writing, plans were announced for the construction of additional skyscrapers of impressive size.

A great deal of office space is occupied by a wide variety of small to medium-sized establishments run by building contractors, industrial auctioneers, foreign consulates, trade associations, planning and building consultants, manufacturers' agents and many other enterprisers and organizations. In the main, they are found south of Queen Street, either just west of Bay Street or just east of Yonge Street. Nearly all of them are more widely dispersed throughout Metropolitan Toronto than most other types of occupants of the CBD. Of the 310 manufacturers' agents in Metropolitan Toronto, for example, only about 140, or 45 per cent, are found downtown. There, most of them occupy relatively low-cost space in old buildings on the southern and southwestern margin of the district.

A number of enterprises in the general office area of the Central Business District are conspicuous yet difficult to define, even in terms of broad categories. On Bay Street, for example, south of King Street and along the east side of

Yonge Street between Adelaide and Wellington there is a rather significant concentration of steamship and airline offices and of travel agencies and services. This clustering, although partly historical, is due mainly to the large surrounding market. It need only be noted that scattered through the general office district are also such businesses as chartered secretarial, public stenographic, addressing and letter services and telephone-answering agencies.

A distinct part of the general office zone is the complex of municipal and other administrative buildings such as the city hall, the city registry office and Osgoode Hall. The last-mentioned combines instruction in law with the administration of justice and is for all practical purposes the home of the Law Society of Upper Canada. Thus the services centred in this complex of offices vary from city-wide to metropolitan to province-wide. The completion of the new city hall on Civic Square will bring about the realization of plans formulated many years ago and will undoubtedly strengthen the administrative function of this part of the Central Business District.

Manufacturing, Wholesaling and Miscellaneous Functions

Most of the manufacturing and wholesaling firms in the Central Business District are either dependent on other activities carried out there or are closely related to them.* There are some 30 printing firms, all of which obtain from 50 to 80 per cent of their business locally. Most of the printers operate in old, low-rent buildings, mainly west of Bay Street south of Adelaide Street. The three daily newspapers are within or near the general CBD office area, where they have the advantage of proximity to the courts and city hall. Most of their advertising revenue, moreover, comes from CBD businesses either directly or through downtown agencies.

Also important are jewelry-making and such related activities as repairing and engraving. The Central Business District contains about one third of all the firms of these types in Metropolitan Toronto. This kind of manufacturing is closely associated with the large retail organizations of the CBD. Jewelry firms depend on close contact with their clientele for repair work and rapid delivery, and tend to cluster for the convenience of their downtown and out-of-town customers. Jewelry manufacturers are in a more favorable position, since they can pay high rents and do not require much space. They tend, however, to locate on upper floors, where rents are lower.

Wholesaling is scattered throughout the southern and southeastern sections of the Central Business District. It is well concentrated along Wellington and York streets in a remnant of an extensive wholesaling zone that developed in this area between the railways and the port on one side and the former King Street retail concentration on the other. Here are found a number of large wholesale firms, some of which still have their warehouses, offices and showrooms together in the same building. Others—small enterprises in particular and new firms in general—have erected new warehouses in the suburbs and maintain only a showroom and sales offices in the Central Business District.

*See also downtown manufacturing (pp. 130-133).

Many CBD firms handle high-quality goods including clothing, cosmetics, gifts, novelties, chinaware, high-quality textiles, furniture, carpets and broad-looms, and other house furnishings. A marked concentration of firms handling such goods occurs along Wellington between York and Bay streets. Wellington, indeed, is the focal point for wholesaling in downtown Toronto.

A main advantage for wholesale establishments in this part of the CBD is proximity to the large hotels, which is a convenience for foreign sales representatives and buyers from all parts of Canada. The smaller firms, which depend less on outside buyers, prefer to be close to the head offices of chain stores and other downtown retail outlets. In some ways, the emphasis on high-quality goods in the downtown wholesale concentration may be attributed to the demand of special retail outlets in the CBD.

Mainly on the southwestern margin of the office district, but also on the southeastern edge, there is a major concentration of hotel and convention accommodation. Many hotel guests are participants in conventions and conferences, which are becoming more and more a year-round feature of life in Toronto. The traditional tendency to locate hotels close to the railway stations is weakening as more hotels are built in other parts of the conurbation, including the fringes.

Conclusion

To sum up, attention is drawn to Figure 21, which shows the main functional zones of the Central Business District. The three main components—retailing, local government and the courts of law, and the office district—are clearly marked. Their juxtaposition places Toronto in sharp contrast with such cities as Montreal and those of Europe, and their crowding into the CBD can be explained only by history. Each, with its ancillary activities, seems to constitute a fundamentally separate world. Thus the links between the main retail concentration on the one hand and offices, city hall and courts on the other are very tenuous indeed. The office section has its own specialized retail services, and there are only weak connections between the financial core and the complex of civil administration. The general office district is connected with the courts only to the extent that it accommodates the offices of specialized legal firms. Yet in the planning of the new city hall and civic square, no serious consideration was given to locating the entire complex, which will include the municipal offices for Metropolitan Toronto, more toward the centre of the metropolitan population. The erection of a new city hall in bold architectural style might, of course, give the downtown area new life and vibrancy.

The question of the future of the Central Business District is interesting. As the efficiency of the transportation system increases, many parts of the city will become virtually as central, or more so, than the downtown area. Certain business services now in the CBD will undoubtedly move out as they did in the past. Perhaps Toronto will develop the pattern typical of many European cities that never had the space for a concentration of activities in one district.

It should not be thought, on the other hand, that the downtown area is withering on the vine. True, retailing continues to show a relative decline as the suburban areas of Metropolitan Toronto expand, but this development is in part unavoidable because of the general rise in the standard of living. When goods and services were less in demand, they were obtained downtown and distributed from there over a wide area. Goods of the same type and many new kinds are now demanded by virtually the entire population and are consequently distributed not only from downtown centres but from innumerable others. Specialization continues, however, and there will always be a wide variety of goods and services so specialized and so complex that they can be provided at only a few points. The city of the future may contain a number of such specialized cells, and they will be at the top of the hierarchy of service centres. Some of them will undoubtedly be in the Central Business District. This trend is at present most clearly evident in the development of the financial district.

It seems certain that most financial institutions and related activities will remain in the Central Business District. New York City, with Wall Street still firmly entrenched as its financial centre, provides a useful parallel. With the growth of the role of Toronto as a financial centre, the financial cell may expand its boundaries and become the most important segment of the present area of the CBD.

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